ARCHITECTURAL FORUM

JULY 1937

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VOLUME 67—NUMBER ONE

THE MONTH IN BUILDING

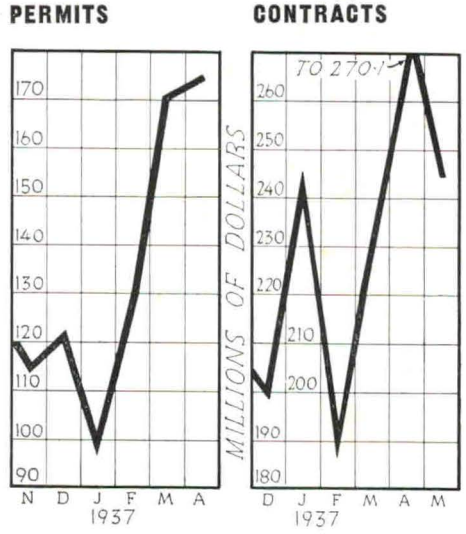
VOLUME

PERMITS (April)	$174,843,461
Residential	88,105,967
Non-residential	50,062,290
Additions	36,675,204
March, 1937	171,188,123
April, 1936	121,783,997

Permits from the Dept. of Labor

CONTRACTS (May)	$244,112,800
Residential	83,937,000
Non-residential	93,432,700
Heavy engineering	66,743,100
April, 1937	269,934,200
May, 1936	216,070,700

Contracts from the F. W. Dodge Corp.



It is normal to expect a seasonal decline in contracts during the late spring. However, the 11 per cent gain registered in contracts this May over May of 1936 represents the smallest percentage increase made over a similar month of the previous year since 1937 began. Residential contracts slipped from $108,013,400 in April to less than $84,000,000 in May. In the same way, the minuscule increase in permits from March to April is definitely contraseasonal. The lift of 2.3 per cent in permits from the 1,474 cities reporting to the Department of Labor is about one-third of the seasonal rise. April's poor permit showing is due in large part to New York City, where the drop from March was 24.4 per cent. By the same token it is logical to expect a still greater slump in permits when national returns are in for May, because New York City during May fell off another 28.6 per cent.

BUILDING COSTS. Wherever two or more building money men got together last month over a glass of beer they could and usually did trade anecdotes about the unhappy rise in building costs which has been the curse of the residential market for the last four months. As is usual, however, the statistics on building costs failed adequately to mirror the true situation, left everybody somewhat at sea. Partially to remedy this situation came an eight-page analysis from the reputable presses of Standard Statistics. Excerpts:

"Labor costs are an important factor in construction expense, and an unfortunate feature of the indexes is that these rely on wage scales rather than on actual wage rates. In other words the increase in labor cost on buildings has been far greater than the indexes would indicate . . . From the numerous reports brought directly from the field, it is concluded that average construction costs are now approximately 12 per cent above those prevailing at the end of the 1936 building season. In some sections of the country the increase has been even greater.

"Prices for (material and equipment) now average 10 per cent above those prevailing last December 1 . . . Advancing building costs are definitely restricting the volume of residential construction."

Says Standard Statistics in conclusion: "Total building construction of all types this year, it is estimated, will be at least 25 per cent above that of 1936."

HOUSING HARLEM. One day last month in Manhattan PWA Housing Director Thomas Grey squiggled his name on a lease form, then watched the New York Housing Authority's Langdon Post and Mayor Fiorello LaGuardia do the same. Thus effected was the first transfer of a PWA housing project from the Government to a local housing authority. Under the terms of the one-year lease—which is frankly experimental—the New York Housing Authority will assume the management of the just completed Harlem River project for Negroes, collect its rents, and from them begin to repay the Government 55 per cent of its $4,200,000 investment.

What the New York Housing Authority got were 574 dwelling units in a project of four- and five-story walk-ups covering 25 per cent of its land. The apartments, ranging in size from two to five rooms, will rent for an average of $7 per room per month. Housing students with a statistical turn of mind were quick to figure out that this rate did not constitute an economic rent even after taking the 45 per cent grant into consideration, guessed that the Federal Government was ready to take the added loss by accepting a minuscule rate of interest on its investment.

For comparative data the PWA issued a booklet showing an aerial view of Harlem Houses and its surroundings. Three streets away stands a block of so-called "Old Law" tenements, dark and airless rookeries whose further construction was declared illegal in 1901, and whose rents today are generally below the new PWA rate. Two streets away stands a block of New Law tenements, representing a slight improvement in housing standards. However only 1¼ per cent of the New Law tenements built since 1928 rent for less than $12.50 per room per month. And one street away from Harlem Houses stand the famed Dunbar Apartments, an intelligent attempt at good housing financed by Rockefeller money on a limited dividend basis. With rents consistently above $12.50 per room per month, the Dunbar Apartments have failed to show a profit.

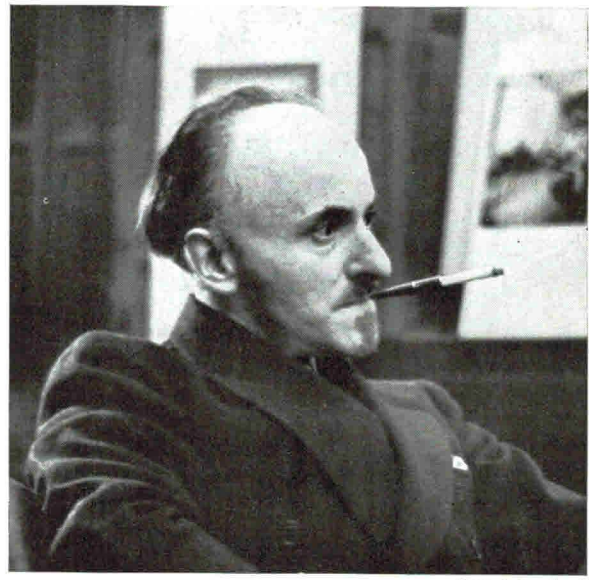
NO LIMITATION. Dear to the heart of every real estate owner is the cause of tax limitation, a cause in which he can see no possible wrong. To some it was therefore cause for consternation last month when the important, progressive Twentieth Century Fund published its latest report "Facing the Tax Problem" and presented serious arguments not only against tax limitation but even against most forms of tax reduction (see p. 66).

Chief ground for these objections by the Fund appeared to derive from the concept of "tax justice," under which no category of taxpayers should benefit at the expense of another category less able to stand the burden. At the same time the Fund report takes the stand that present realty taxes are undoubtedly too high, comprising as they do the largest single source of revenue in the U. S. The Fund's tentative suggestion for a tentative solution to this moral dilemma: broadening of the income tax with consequent curtailment of the property tax.

LABOR. In Cincinnati's Hotel Hollenden last month some 250 delegates from 103 national and international AFL unions met, listened to attacks on the CIO, adopted a program which included the expulsion of all CIO affiliates from the AFL, the increase of per capita dues from one cent per month to two cents per month in order to fill a war chest to combat the CIO, and immediate steps at counter-organization to balance the membership drives of the CIO.

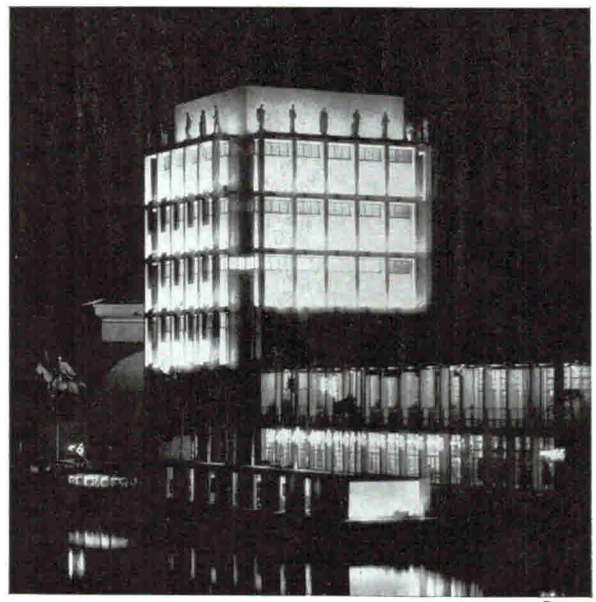
(Continued on page 4)

ARCHITECTURAL FORUM JULY 1937



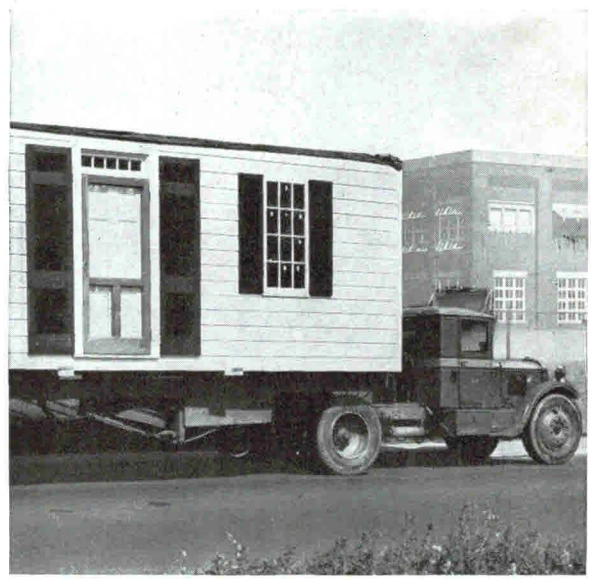
Samuel Vandivert

MAN OF THE MONTH . . . he turned to glass, and won (page 68 Adv.)



Bonney

BUILDING OF THE MONTH . . . Il Duce ahorse and ablaze in Paris



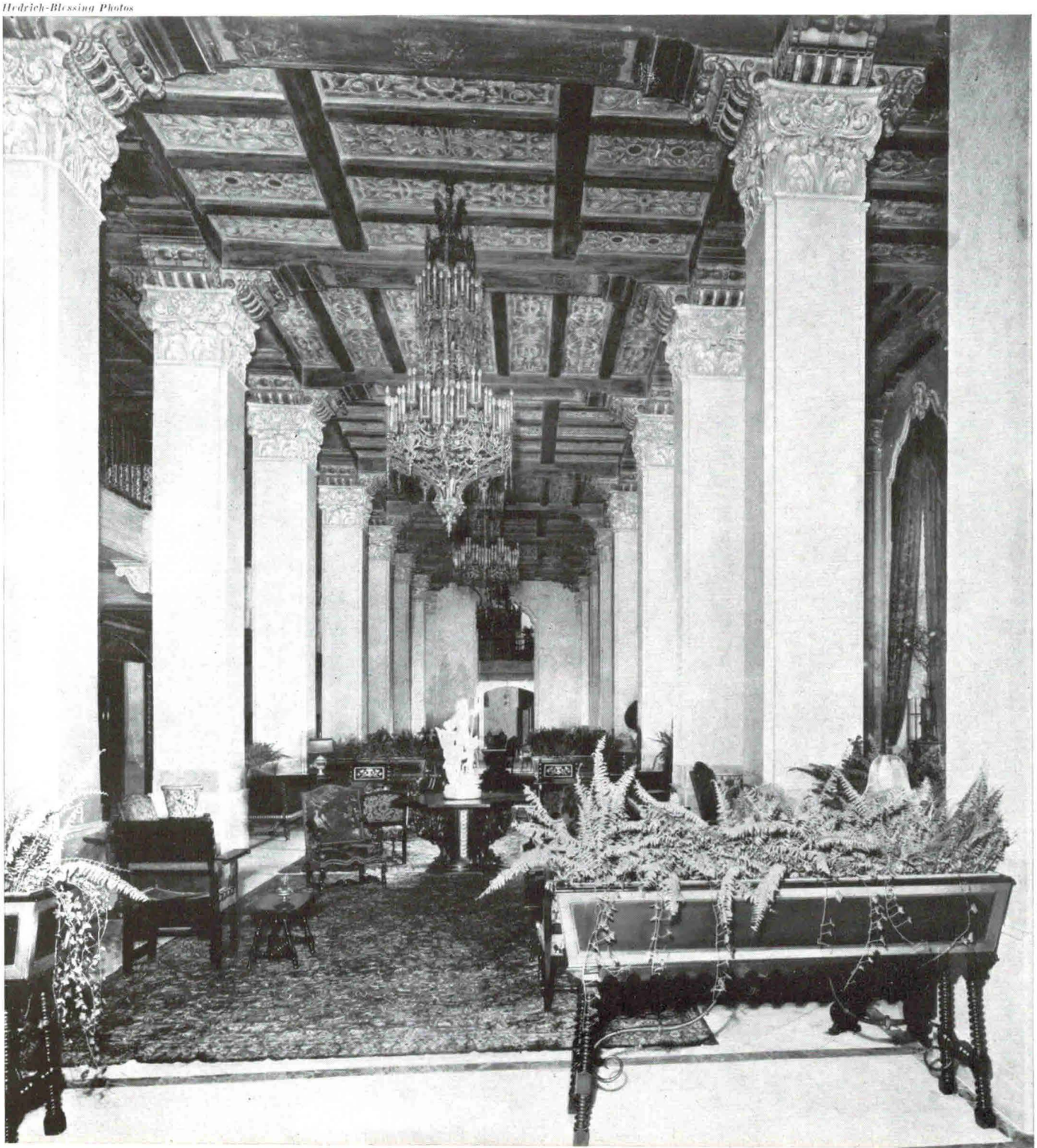
PRODUCT OF THE MONTH . . . the house that moves (page 53 Ed.)

FROM RED INTO BLACK

Remodeling Emerges with a Convincing Profit Record

Once considered a highly speculative and uncharted venture, remodeling has in the recent past become an enormous and stable field for the real estate investor. Daily new evidence validates the profit possibilities in remodeling obsolete, bankrupt buildings. During the Depression the number of such properties which passed into the hands of strong institutions provided the urge to subject this problem to intensive study and the brains to produce numerous realistic solutions. The field of remodeling for profit cannot be reduced to exact pattern but an examination of many examples discloses that in the hands of an expert architect miracles happen . . . a musty store

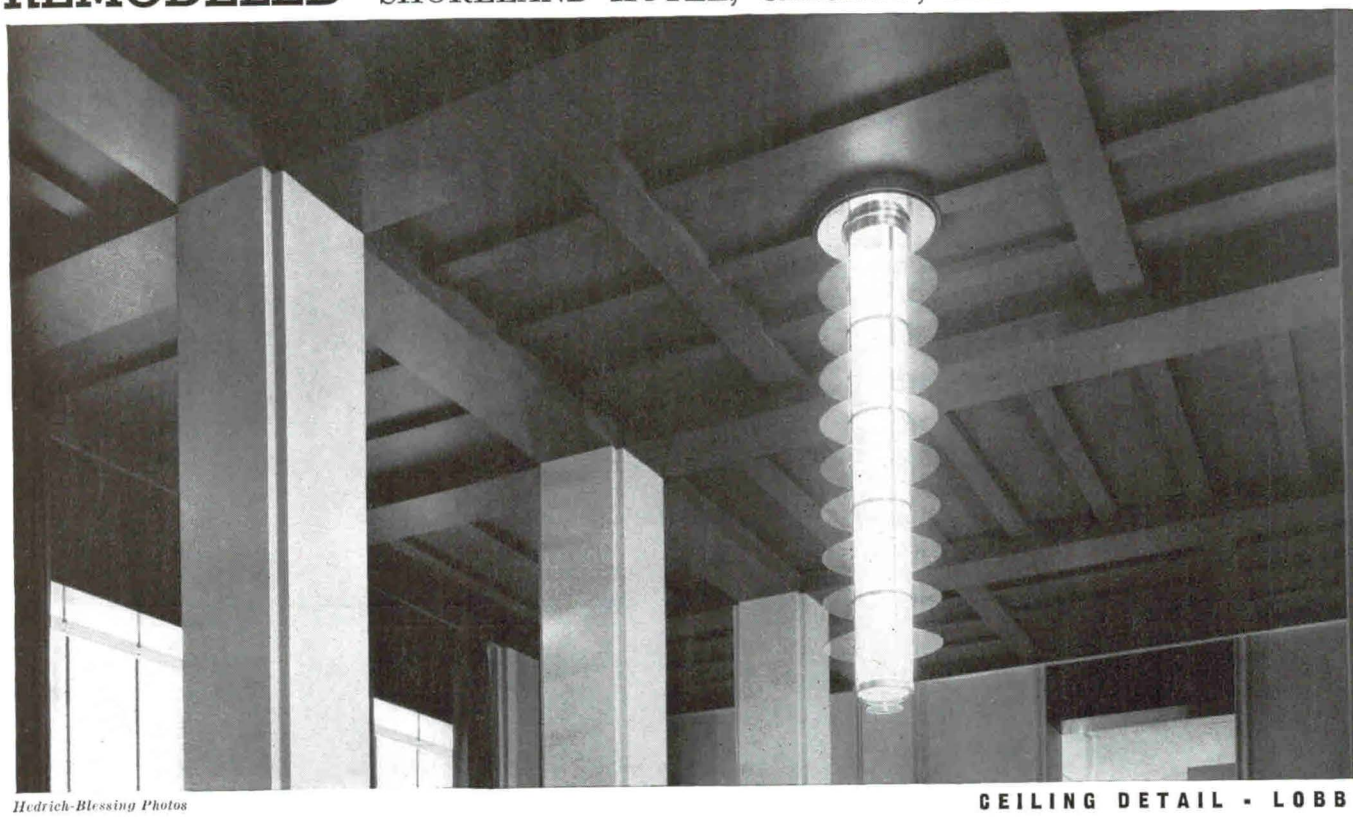
Hedrich-Blessing Photos



acquires a shiny, new front and a new tenant at a higher rent is not far behind; old apartments are divided into small, popular units and families flock in; decrepit houses are reenforced, cleaned up and re-equipped, and the property moves overnight. As building cost continues to advance, the advantages of recapturing outmoded structures through remodeling obviously advance with it. The list of successes is long; equally long are the profit opportunities which still remain in every city and town for the shrewd investor and his skillful architect. To such, THE FORUM offers this portfolio of current successes.

SHORELAND HOTEL, CHICAGO, ILL. JAMES F. EPPENSTEIN, ARCHITECT

REMODELED SHORELAND HOTEL, CHICAGO, ILL.



Hedrich-Blessing Photos

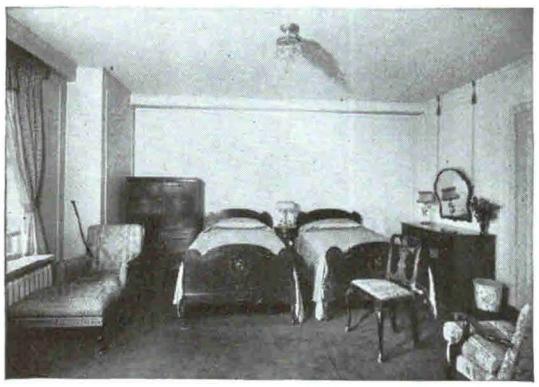
CEILING DETAIL · LOBBY

Something of a tribute to the original architect is the remarkable improvement effected in this apartment hotel by the simple expedient of stripping away rococo ornament, since in the remodeled structure the excellent proportions of the original are revealed. No structural changes were made. Ornamental plaster, including column capitals, brackets, and colonettes at window and door openings, was removed and all surfaces made plain. Arched openings were squared off—window openings being squared on the inside only, since it was impracticable to make any changes in the exterior. Ornamental wrought iron work, including grilles and railings, was replaced with plain. Only additions were the glass brick wall at the rear of the elevator foyer, new lighting fixtures, mirrors and new furnishings. The color effect is rich: beige marble floor and wainscoting, with walls painted to match, rust draperies and ceiling, rust, jade green and royal blue upholstery, woodwork natural finish walnut, and metal work brushed brass. Illustrated on the opposite page are typical changes made in the individual apartments. Here again much has been accomplished by simplification and expert refurnishing, which has clearly been done with an eye to both appearance and convenience. The living room floor plan shown on this page might well serve as a model for rooms of this type.

ELEVATOR LOBBY

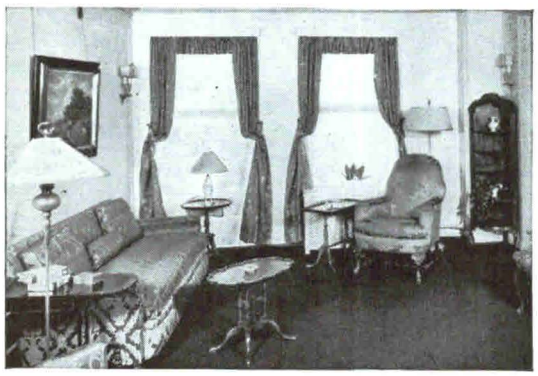
JAMES F. EPPENSTEIN, ARCHITECT

BEFORE

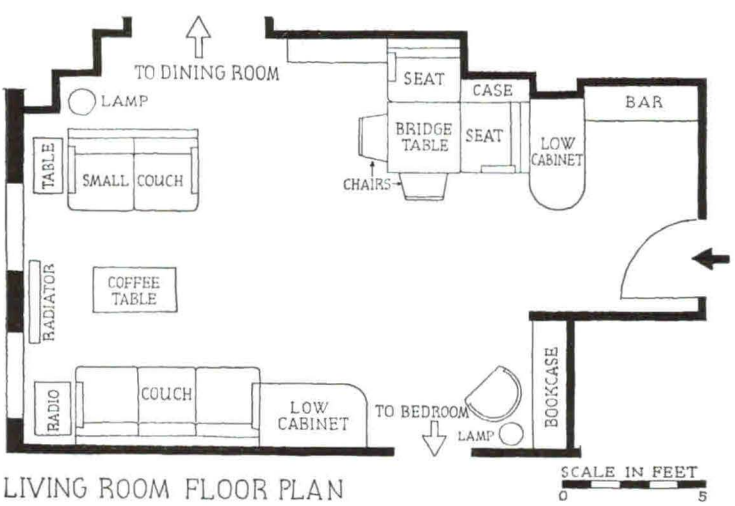


BEDROOM

BEFORE



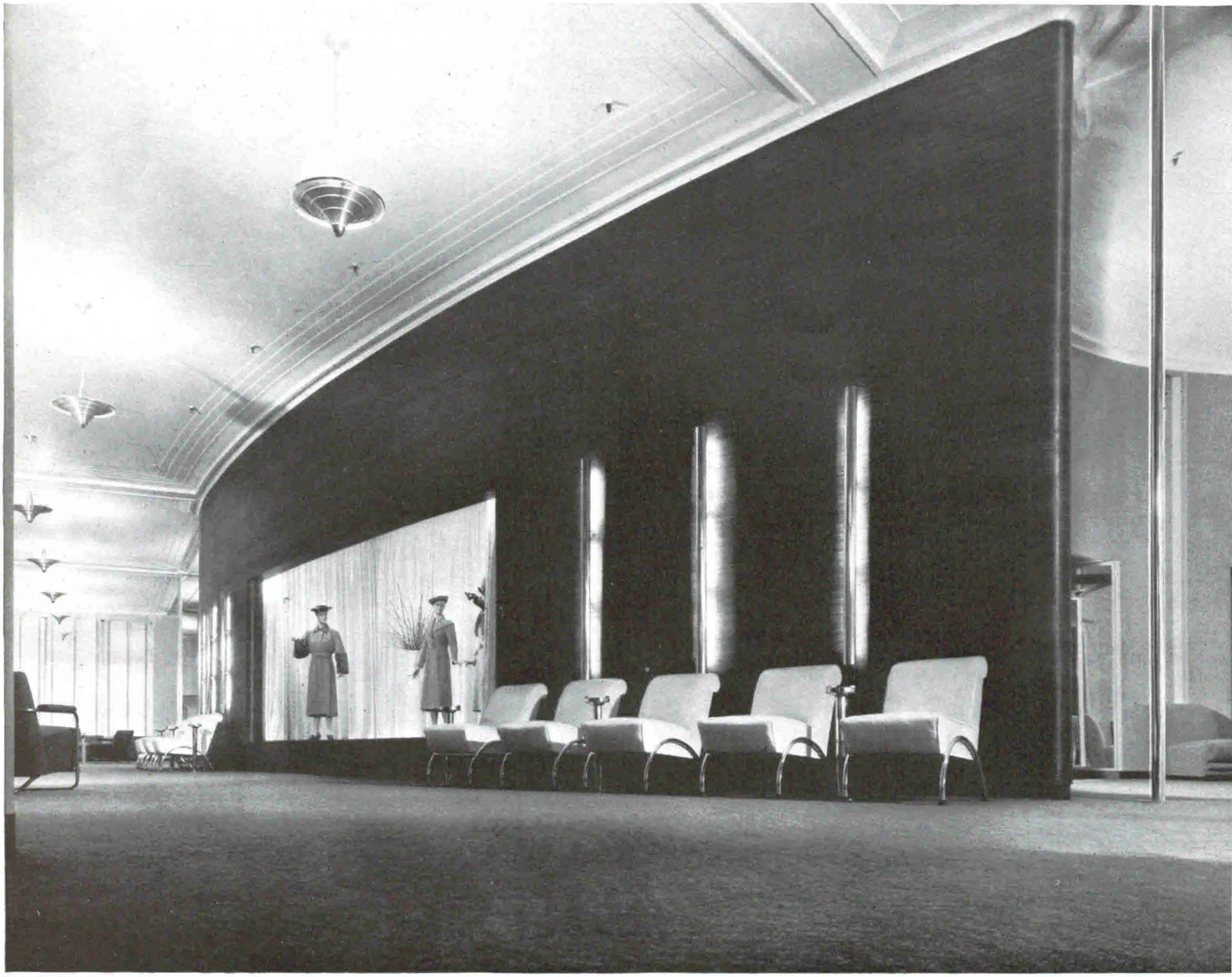
LIVING ROOM



LIVING ROOM FLOOR PLAN

LIVING ROOM - BAR

REMODELED FLOOR OF DEPARTMENT STORE, HALLE BROS.



Hedrich-Blessing

VIEW 1

Product of the collaborative efforts of a department store engineer and an industrial designer, each a recognized expert in his own field, and begun with a clean sweep in which all existing partitions, fixtures, luminaires and carpets were discarded, this remodeled floor of a Cleveland department store may be taken as an authoritative last word on design for merchandising. The major change in space-use was made in what was formerly the coat section. In the original plan this selling area occupied the center of the floor directly opposite the east bank of elevators, with stock and fitting rooms occupying the entire wall area at the windows. No daylight was available in this section: to make color comparisons by daylight the customer had to be taken through narrow aisles past the fitting rooms to the windows. The new plan reverses this arrangement. Stockrooms are now located nearer the center of the floor area, and selling areas have full access to window walls in both sides of the store. The center of the store, valueless as selling space for merchandise which requires natural light, now serves as a combined lobby, passageway and display space,

CLEVELAND, OHIO

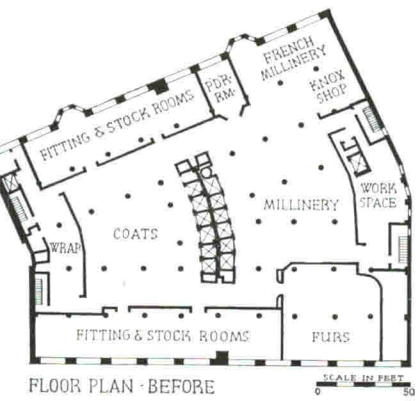
GILBERT ROHDE, DESIGNER; C. A. WHEELER, ENGINEER

BEFORE

Heiser Co.

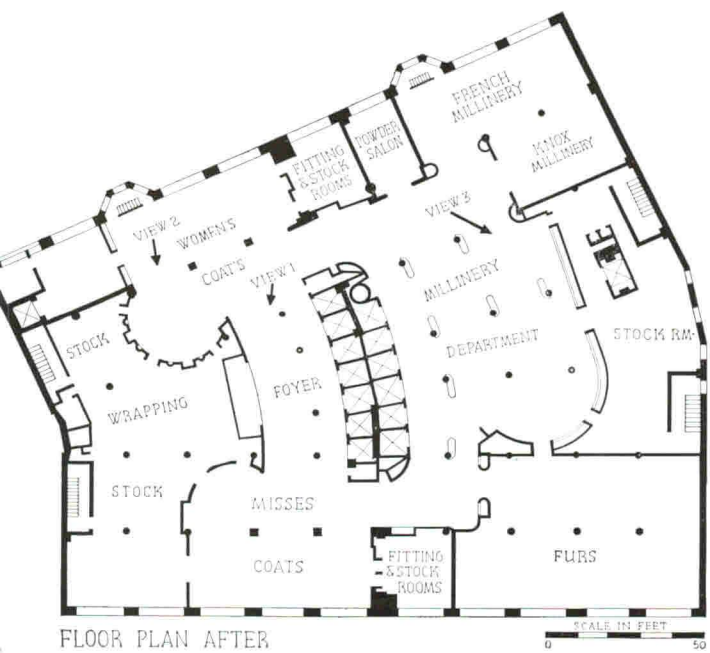
VIEW 2.

Hedrich-Blessing Photos



FLOOR PLAN - BEFORE

VIEW 3.



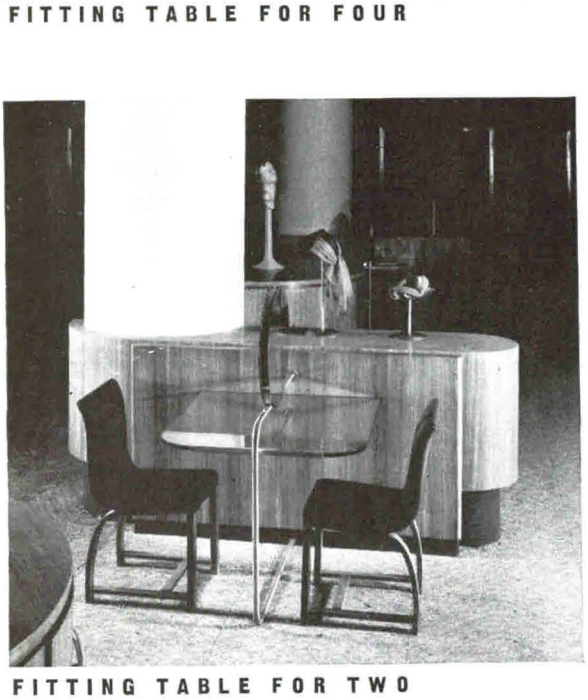
FLOOR PLAN AFTER

REMODELED FLOOR OF DEPARTMENT STORE, CLEVELAND, OHIO

GILBERT ROHDE, DESIGNER; C. A. WHEELER, ENGINEER

ROUND STORAGE TABLE *Hedrich-Blessing Photos*

FITTING TABLE FOR FOUR



FITTING TABLE FOR TWO

providing just enough demarcation to make it obvious to the customer that there are two departments without setting up the sales obstacle which arises in the case of isolated shops. In the center of the long curved wall which the customer faces as he leaves the elevator is a twenty-foot stage, which can be used for manikin display of garments, or for fashion shows with living models. Decoration throughout is extremely simple. The walls consist of large plane surfaces, with long, sweeping curves—restful backgrounds which do not conflict with merchandise of bright and varied colors. Use of various veneers, ranging from bird's-eye maple to walnut and dark rosewood, together with fawn colored and darker brown upholstery, results in a delicate blonde-to-brunette monochrome effect. A feeling of quality and stability appropriate to the character of the store is secured by richness of materials and texture, by quiet dignity and simplicity of design, and evident permanence of construction. Cost, including furnishings, was $65,000.

FINISHES

STRUCTURE: Interior partitions—wood studs and gypsum board covered with Flexwood, U. S. Plywood Co., Inc.
FURNISHINGS: All furniture by Herman Miller Furniture Co.
FLOOR COVERINGS: Total area covered with carpet, Bigelow-Sanford Carpet Co., Inc.
WALL COVERINGS: Major portion—Flexwood, U. S. Plywood Co., Inc. Remainder—Duraleather, Masland Duraleather Co.
LIGHTING FIXTURES: Fixtures—Edge-Ray, Curtis Lighting Co., Inc.

REMODELED DEPARTMENT STORE, HESS BROS., ALLENTOWN, PA.

THALHEIMER & WEITZ
ARCHITECTS

BEFORE

In line with a local "Modernize Main Street" campaign, both facades of this corner department store were faced with limestone and new windows installed. To provide for necessary expansion, two floors were added to the corner portion, resulting in a more unified mass. Cost of the entire project, including the two-story addition, was $150,000.

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—limestone, brick backing, granite base. Floor construction—wood floor on bar joists.
WINDOWS: Steel sash, J. S. Thorn Co.
DISPLAY WINDOWS: Stainless steel sash and awning hood. Entrance vestibules and doors, letters and flag poles—stainless steel. All work furnished by Loeben Ornamental Metal Works.
WALL COVERINGS: Vestibules—Vermont Marble Co.
HEATING: New system installed by Warren Webster Co. Present boiler adequate for additional heat. Thermostats—Minneapolis-Honeywell Regulator Co. Thermofan unit heater—J. J. Nesbitt.

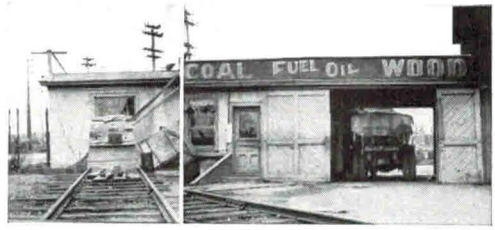
C. V. D. Hubbard

REMODELED COAL YARD, HEMPSTEAD, LONG ISLAND, N. Y.

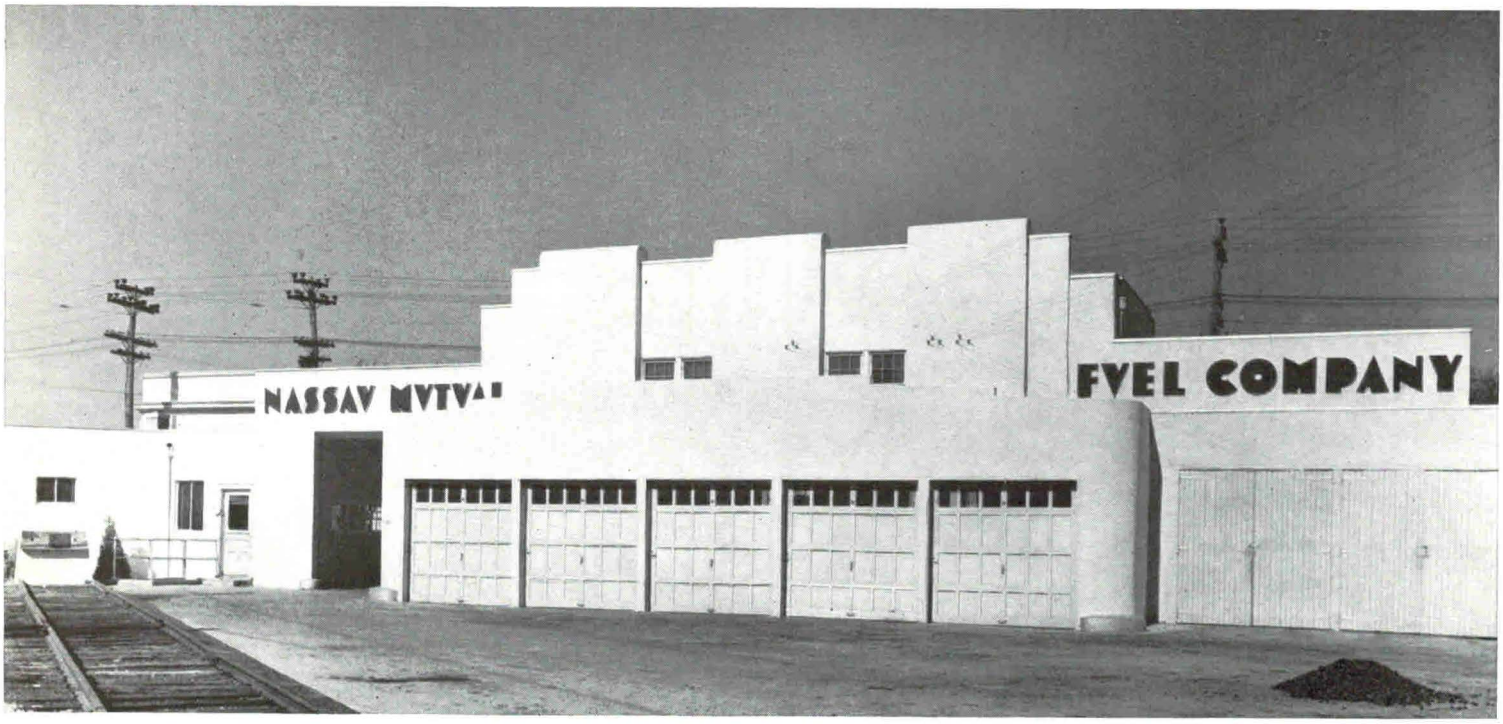
FRONT

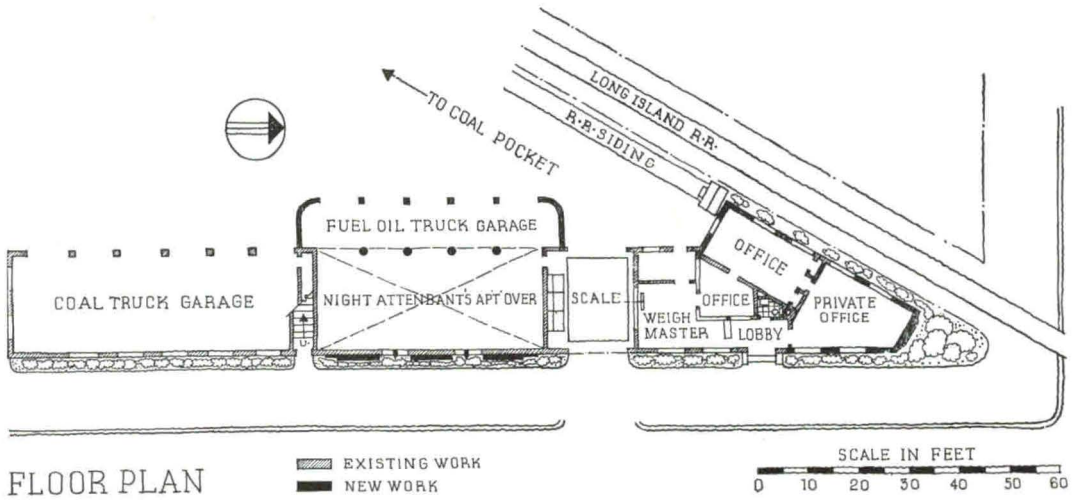
Murray M. Peters Photos

BEFORE



REAR





FLOOR PLAN

An interesting, if somewhat radical experiment, this modernization of a type of enterprise whose premises are generally devoid of any architectural pretensions has been pronounced completely successful by the owners. Sales during February and March this year, after the alteration, were twice the sales for the same period last year, despite a mild winter. The modernization work was decided upon for three reasons: location of a new railroad station overlooking the yard, need for more garage space to accommodate larger fuel trucks, and a desire to overcome the prejudice against the location of this type of business near residential neighborhoods. In connection with the remodeling work, general repairs to all parts of the structure were made. Cost: $8,768.

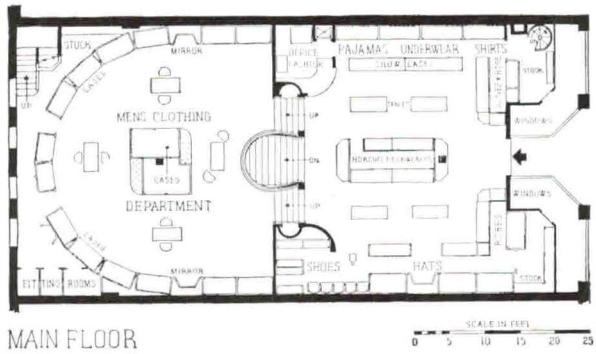
CONSTRUCTION OUTLINE

FOUNDATIONS
Footings and walls—concrete, Atlas Portland Cement Co.
STRUCTURE
New walls—stucco finish coat of white Atlas cement, ground marble and waterproofing compound.
ROOF
Built-up roofing, Johns-Manville, Inc.
SHEET METAL WORK
Flashing and gutters—copper.
WINDOWS
Sash—Fenestra commercial steel and Fenestra metal screens, Detroit Steel Products Co. Glass—¼ in. plate.
FLOORS
Cement in garage; balance—pine.
FLOOR COVERINGS
General office space—linoleum, Armstrong Cork Products Co. Private offices—carpet, Bigelow Sanford Carpet Co., Inc.
WALL COVERINGS
Private offices—Idaho knotty pine, Cross, Austin & Ireland Lumber Co.
WOODWORK
Trim—wood. Interior doors—Idaho knotty white pine. Exterior doors—stainless steel. Entrance door—Kalamine, Acme Door & Partition Co. Garage doors—overhead type, Stanley Works.
HARDWARE
Interior—Sargent & Co. Exterior—Yale & Towne Mfg. Co.
PAINTING
Interior: Walls—water stain made with black walnut pods, later waxed for private office; balance—oil paint. Exterior: Sash—aluminum paint, Bridgeport Paint Mfg. Co.
ELECTRICAL INSTALLATION
Wiring—BX. Switches—Harvey Hubbell, Inc. Entrance fixtures—Murlin Mfg. Co. Electric clock—Anhaus Mfg. Co.

ENTRANCE DETAIL

REMODELED STORE FOR THE HUB CLOTHING CO. GRAND RAPIDS, MICH.

BEFORE



MAIN FLOOR

HARRY L. MEAD, ARCHITECT

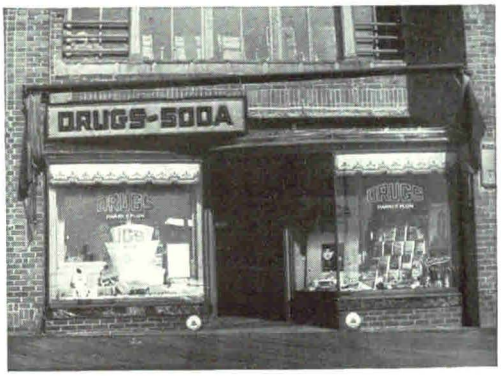
Vacant except for an occasional unimportant tenant for some fifteen years, this Grand Rapids property ultimately reverted to the mortgagee, a trust company, who immediately sought a responsible tenant on the basis of modernization to conform to the tenant's needs. One was soon found in the Hub Clothing Company, who had been doing business for twenty-two years only a few doors away, and the property completely renovated to suit the new tenant's needs. Furnishings of the new store are in excellent taste, and a special feature of the interior design is the central stairway, designed to encourage shopping on semi-basement and mezzanine floors at the rear of the store.

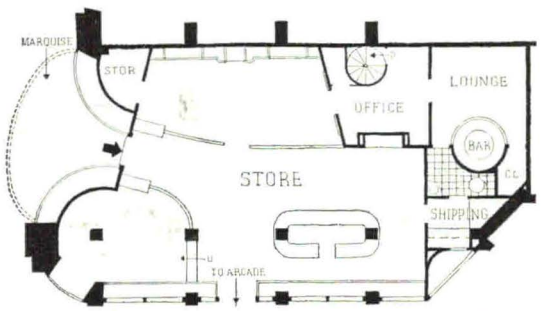
CONSTRUCTION OUTLINE

STRUCTURE: New steel framework in old structure. Front—Macotta, Maul Macotta Corp.
METAL WORK: Stainless steel canopy and aluminum store fronts, The Brasco Mfg. Co. and Toledo Plate & Window Glass Co. Flashing—Follansbee Forge roofing tin, Follansbee Brothers.
WINDOWS: Sash—steel casements, Truscon Steel Co. Glass—¼ in. plate.
STAIRS & ELEVATORS: Stairs—wood, nickel silver railings by Cornelius Tanis. Elevator—Sedgwick Machine Works.
FLOOR COVERINGS: Men's clothing department—carpets. Street level, Boys' department and lower floor levels—composition flooring, Thomas Moulding Mfg. Co., installed by United Tile & Marble Co.
WOODWORK: Trim—oak and Flexwood, U.S. Plywood Co., Inc. Interior store equipment, shelving, show cases—Grand Rapids Store Equipment Corp.
HARDWARE: Interior and exterior—P. & F. Corbin.
PAINTING: Interior walls and ceilings—paint, Ford Paint & Varnish Co.
ELECTRICAL INSTALLATION: Wiring—single phase 3-wire grounded neutral system. Switches—flush type with composition plates, Hart & Hegeman. Fixtures—round flush type, recessed, diffusing with concentric louvers, Garden City Plating & Mfg. Co.
HEATING: Webster modulation system of steam heating in conjunction with Webster convector radiators, Warren Webster & Co. Boiler—old one repaired and natural gas conversion type burner installed, Bryant Heater Co., controlled by Minneapolis-Honeywell Regulator Co. thermostat.
STORE FRONT: Plain and Neon electric signs, City Sign Co.

REMODELED STORE FOR TRABERT & HOEFFER, INC., ATLANTIC CITY, N. J.

BEFORE





FLOOR PLAN

J. M. BERLINGER, ARCHITECT

The problem here was to attract shoppers, and still maintain an air of dignity and swank in the midst of Atlantic City's blatant boardwalk. Park Avenue jewelers of distinction, Trabert & Hoeffer have long employed the small show window, a device which contributes much to the successful solution of this problem. The plan provides facilities for conferring with clients at individual desks, a requirement of this type of business, and a special feature in the form of an attractively furnished lounge complete with a modern bar. Cost of the project was $6,000.

CONSTRUCTION OUTLINE

STORE FRONT: Marquise steel frame, aluminum enclosure. Bulkhead and front—Carrara glass, Pittsburgh Plate Glass Co.

SHEET METAL WORK
Flashing—copper. Vent ducts—galvanized iron.

WINDOWS
Show window frames—hollow aluminum. Glass—¼ in. plate, shatterproof, Libbey-Owens-Ford Glass Co.

FLOOR COVERINGS
Vestibule—terrazzo. Store—carpet over existing wood, Bigelow-Sanford Carpet Co., Inc. Office and lounge—inlaid linoleum, Armstrong Cork Products Co.

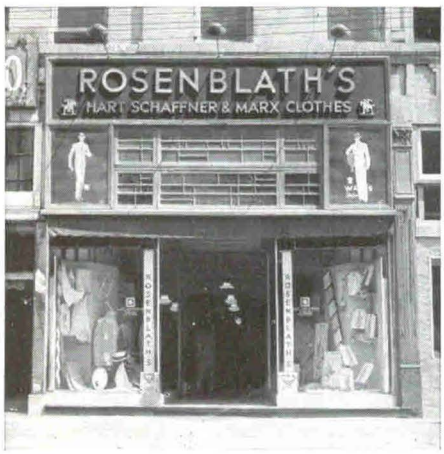
WALL COVERINGS
Show cases—lined with English sycamore Flexwood, U.S. Plywood Co., Inc.

HARDWARE
Cast bronze, white satin finish.

ELECTRICAL INSTALLATION
Wiring—rigid metal conduit, National Electric Products Corp. Switches—toggle type, Hart & Hegeman. Fixtures—Curtis Lighting of N. Y., Inc.

PLUMBING
All fixtures—Standard Sanitary Mfg. Co. Pipes: Soil—heavy cast iron. Water—67 per cent brass, American Brass Co.

REMODELED MEN'S STORE, SHREVEPORT, LA.



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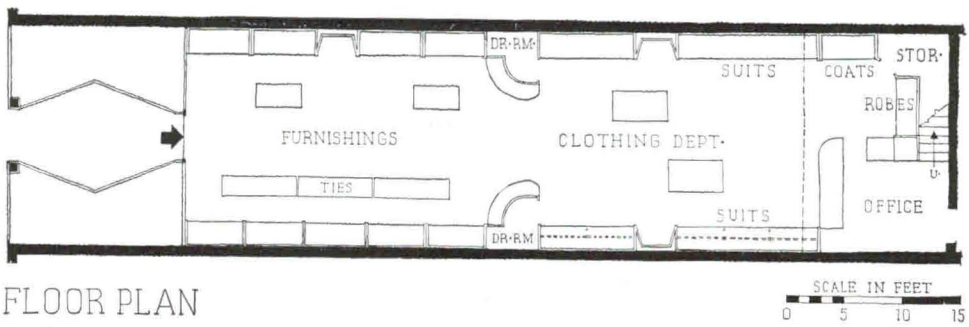
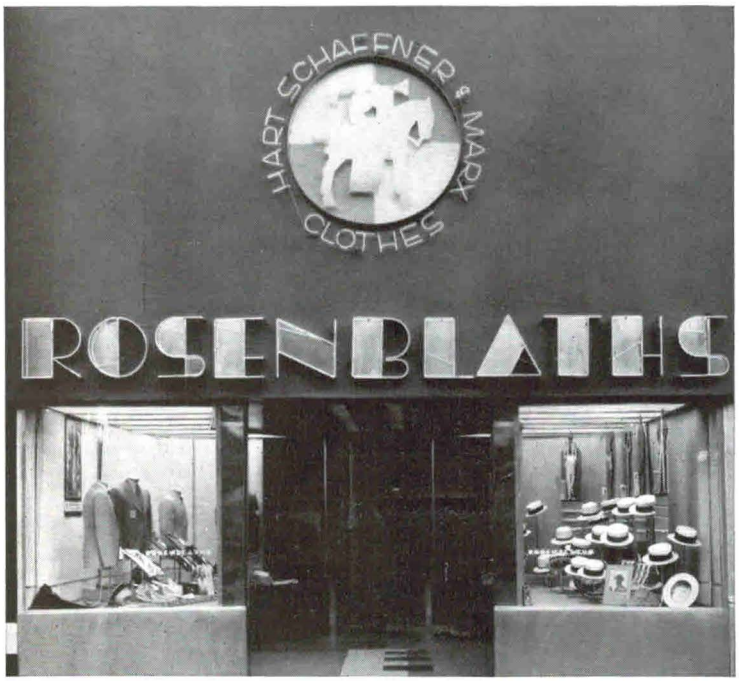
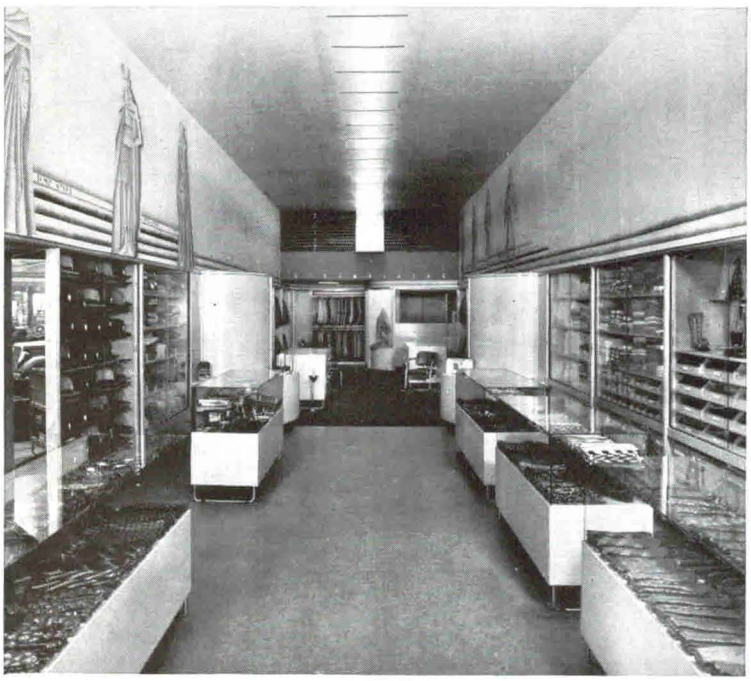


FLOOR PLAN

WILLIAM B. WIENER, ARCHITECT



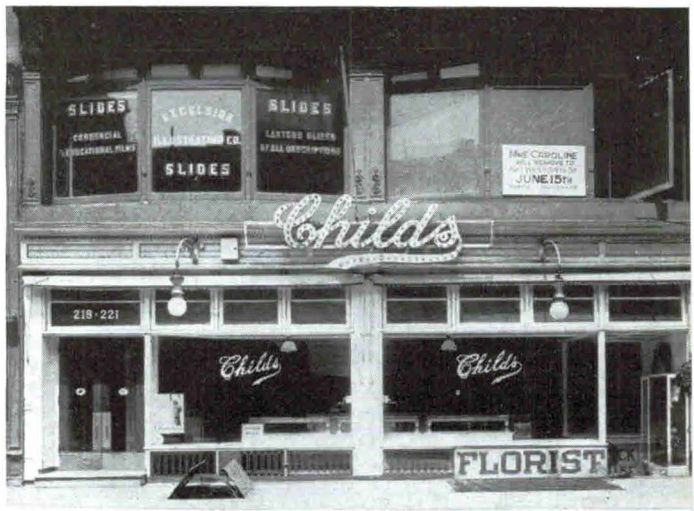
Commendably simple in almost every respect, this recently modernized store indicates that the modern trend is no mere matter of new fixtures and perhaps a new front. Here replanning, with provision of a broad, straight customer's aisle and generously spaced show cases, is equally important in creating the final effect. No attempt is made to disguise the fact that the sales room is a deep, narrow space—instead the single longitudinal lighting fixture serves frankly to emphasize this fact. Net result is a dignified interior with a feeling of unity, and little to distract the customer's attention from the merchandise. Cost: $5,800, including fixtures. Gross sales have increased 24 per cent since the alteration.



CONSTRUCTION OUTLINE

SIGN SPACE: Tempered Presdwood, Masonite Corp., on shiplap extending 2 ft. over sidewalk. Letters—stainless steel with Neon tubing. Ornament—stainless steel, Neon tubing, lights in back.
BULKHEADS: Stainless steel on shiplap.
VESTIBULE: Floor—terrazzo in red with aluminum strips.
DISPLAY WINDOWS: Floor—cork. Backs—temporary only. Ceiling—pyramid crystal glass set in wood strips. Lights—above glass ceiling. Venetian blinds—recessed in ceiling slot, operated from store.
INTERIOR: Floors: Haberdashery—linoleum on wood. Clothing section—covered with carpet.
WALLS: Sheetrock flush with face of wall fixtures, U.S. Gypsum Co.
CEILING: Sheetrock, U.S. Gypsum Co.
LIGHTING FIXTURES: Sanded glass, running entire length of store; clock built into light panel.
STORE FIXTURES: Natural birch finish, stainless steel trim, Westbrook Manufacturing Co.

REMODELED RESTAURANTS FOR CHILDS CO., NEW YORK CITY

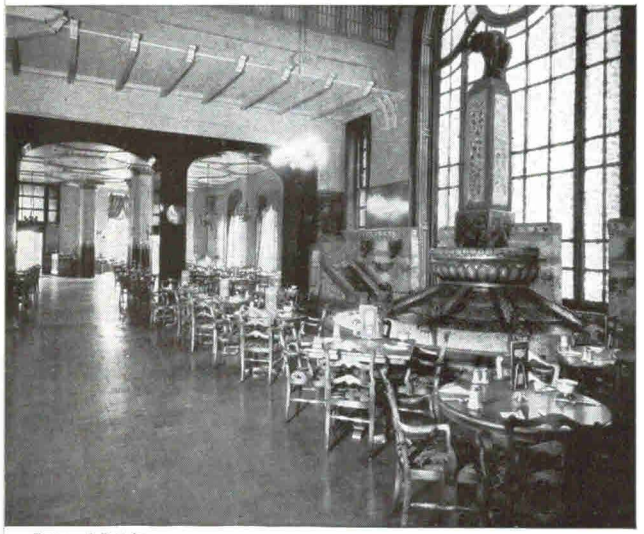


TYPICAL BEFORE

GEORGE E. SWEET, ARCHITECT

REMODELED RESTAURANT FOR CHILDS CO., NEW YORK CITY

TYPICAL FOR 1910



Peyser & Patzig

TYPICAL FOR 1920

These several examples serve to indicate the trend of the modernization program now under way in the famous Childs chain of service restaurants. The new exterior shown on the preceding page is that of a New York City Childs located in the theatrical district, where something rather flashy is required to attract the customers, and is therefore not necessarily typical of Childs exteriors elsewhere. Interiors on this and the following page indicate that the elaborately decorated Childs which replaced the former and better known tile palace type are in turn being replaced by a somewhat simpler modern—on the whole a healthy trend. Emphasis in the new Childs is more on customer comfort, less on decoration, with reliance on quality furnishings to create the desired atmosphere.

GEORGE E. SWEET, ARCHITECT

Stevens

GEORGE E. SWEET
ARCHITECT

SCACCHETTI
& SIEGEL
ARCHITECTS

Stevens

REMODELED STORE BUILDING IN OAKLAND, CALIFORNIA

BEFORE

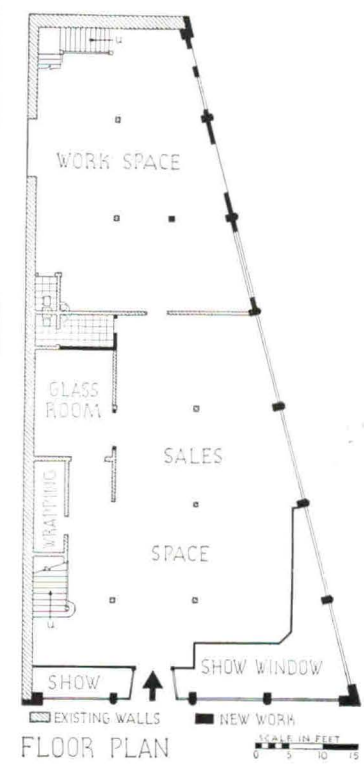
ALBEN RANDOLPH FROBERG, ARCHITECT

Here remodeling meant structural modernization as well as changes in design. New reenforced concrete walls were built to replace old wall of wood frame construction, the interior refinished and the appearance of the exterior greatly improved by eliminating the cornice and lowering the heads of the show windows. Second floor windows were reused. Cost: $8,000; average net increase in rentals: 140 per cent.

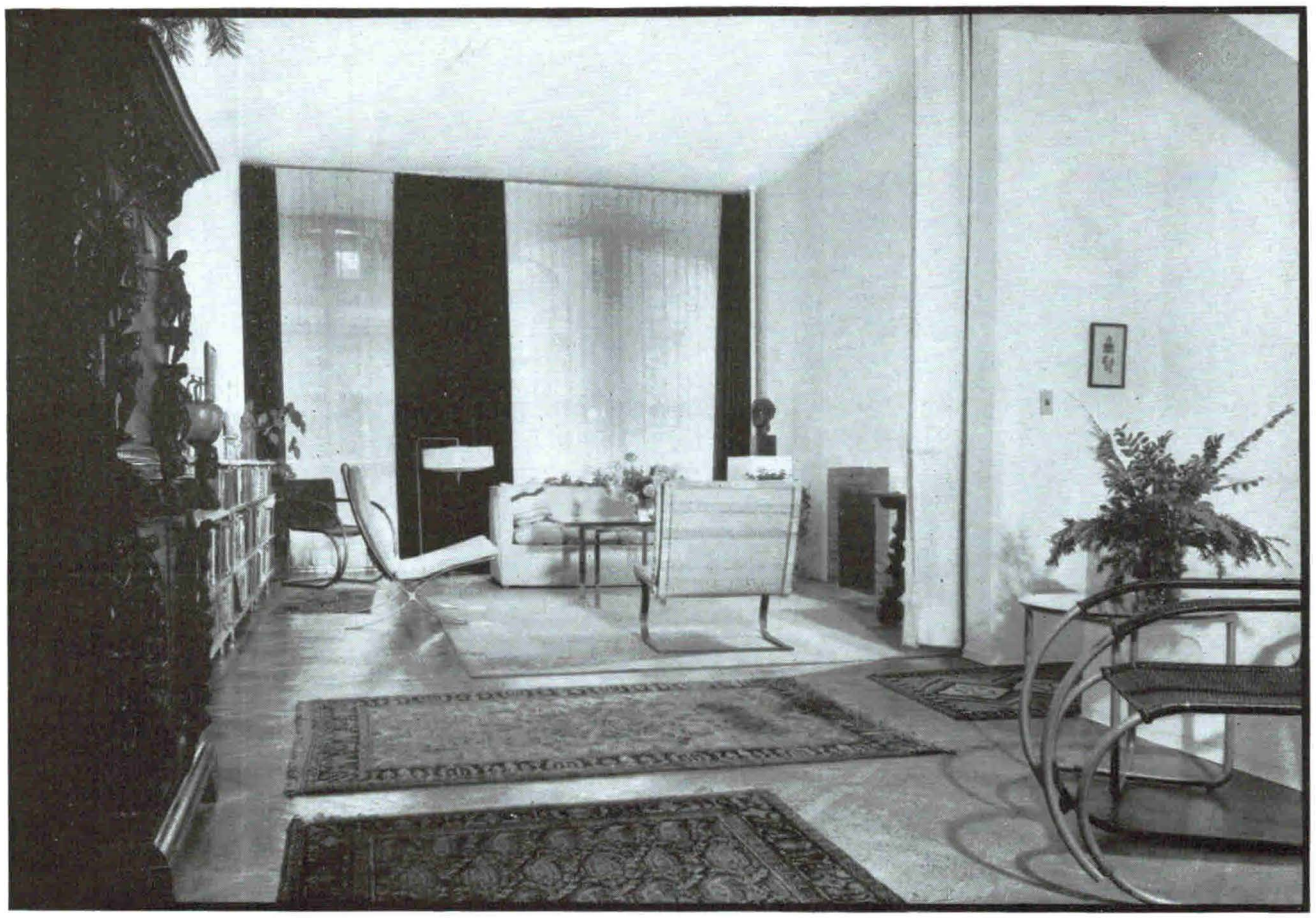
CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—reenforced concrete. Interior partitions—wood studs. Floor construction: First—wood over concrete. Second—wood joists and pine finish.
ROOF: Wood joists, sheathing and composition roofing.
SHEET METAL WORK: Flashing and ducts—No. 26 galvanized Armco iron, American Rolling Mill Co.
FLOOR COVERINGS: Broadloom carpet on second floor.
WOODWORK: Trim and doors—painted pine.
PAINTING: Interior—lead and oil paint in strong, bright colors. Exterior—concrete walls brushed with white cement and sand.
ELECTRICAL INSTALLATION: Wiring — conduit. Switches—General Electric Co.
HEATING: Gas fired circulator unit heaters.

Clyde Sunderland Photos



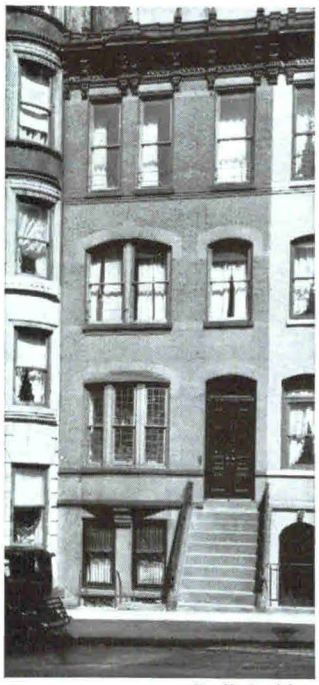
REMODELED TOWN HOUSE, NEW YORK CITY



John Beinert

JAN RUHTENBERG, DESIGNER

BEFORE

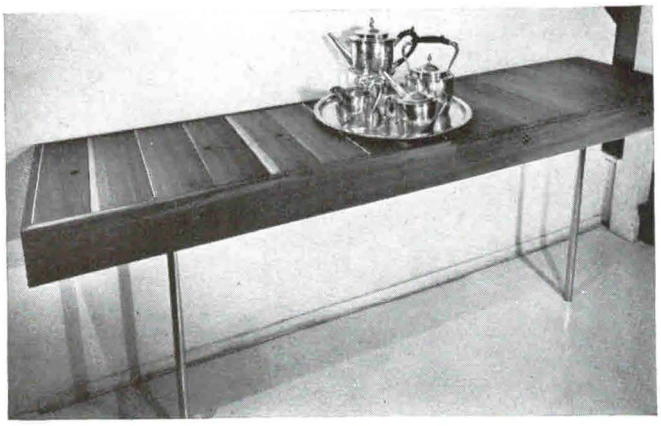


Emelie Danielson

AFTER

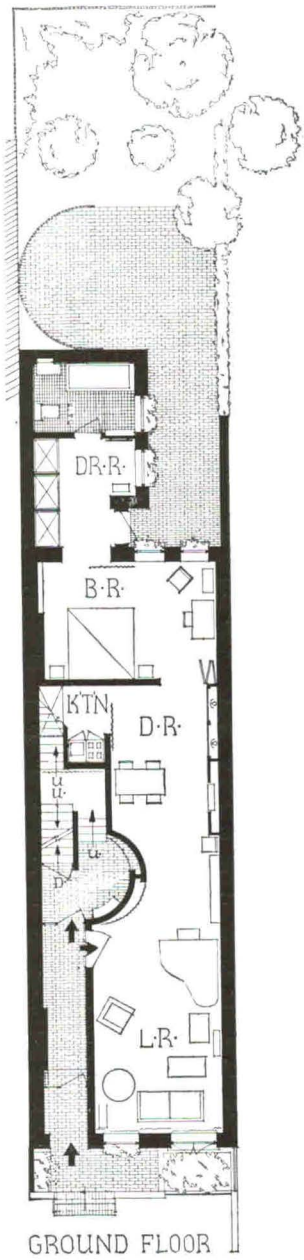
Simplification, both inside and out, was the keynote of this alteration. Work on the exterior consisted only of the removal of the old steps, the creation of a new entry on the ground floor level, the elimination of the cornice, and painting. Inside a half dozen partitions were removed but only one new one built. The chief problem in planning was presented by the width, which was only sixteen feet. By relocating the stairs it was possible to find enough space for a small ground floor apartment; the other apartment occupies the upper three floors. A typical example of the ingenuity in planning is afforded by the curved entry walls on the ground floor: by overlapping the curves space is found in the living room and stair hall for coat closets that would otherwise have had to be omitted. Another simple but effective device was the removal of plaster in the entry and second floor studio, exposing the brick of the party wall; this gained three inches of valuable space in the entry, and provided a richly textured surface in the studio which shows off the severe furniture to great advantage. Since the expense

REMODELED TOWN HOUSE, NEW YORK CITY

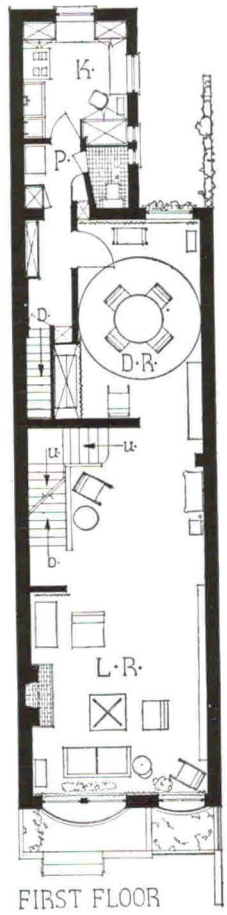


Emelie Danielson Photos

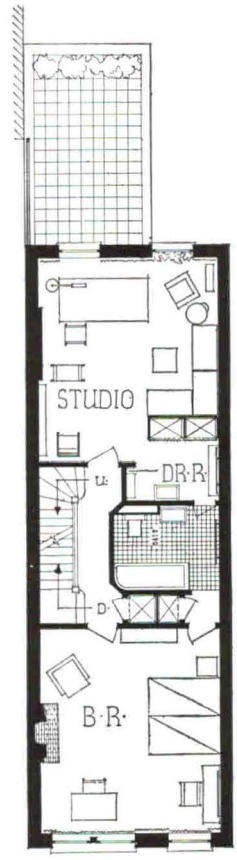
SILVER AND SERVING TABLE



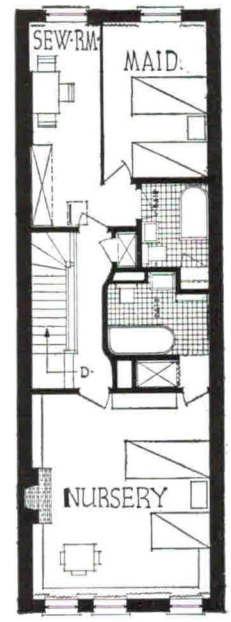
GROUND FLOOR



FIRST FLOOR

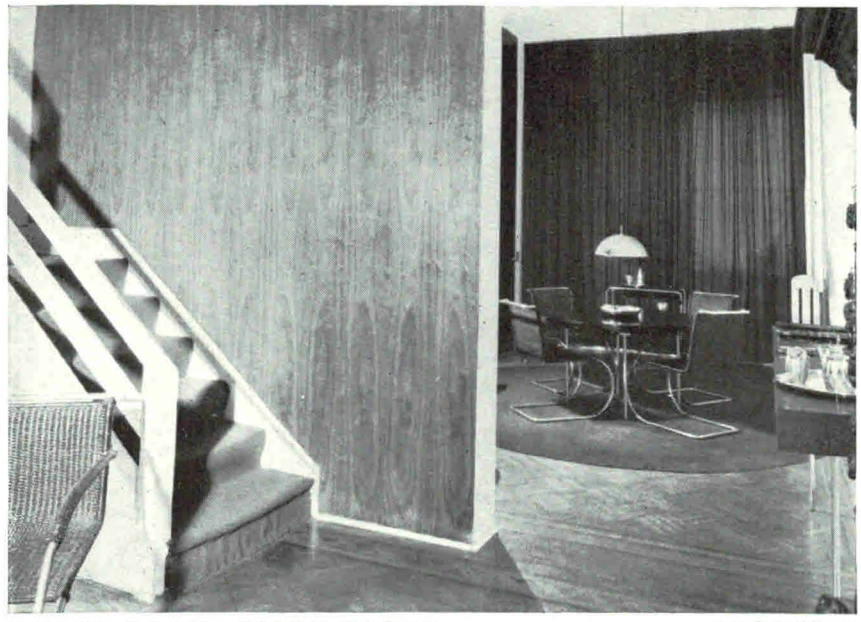


SECOND FLOOR



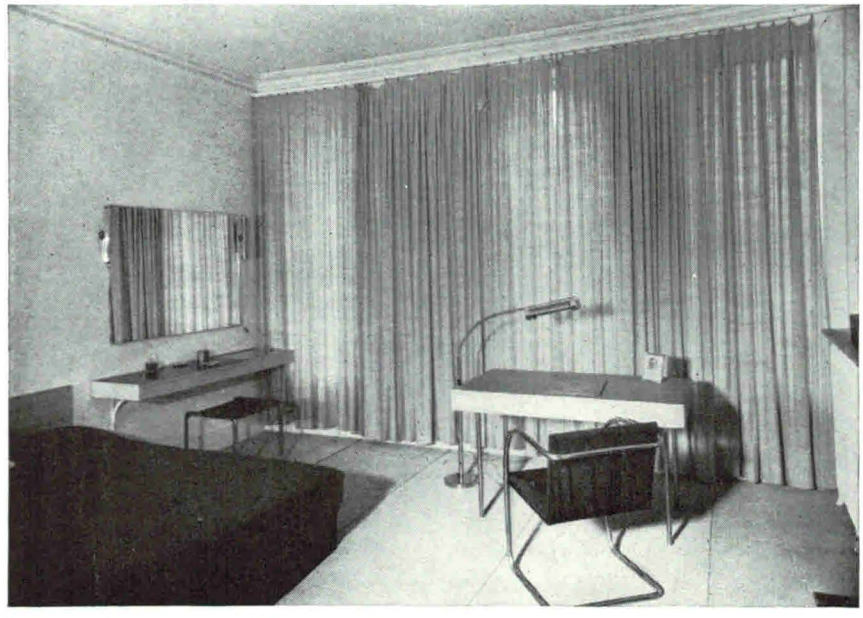
SCALE IN FEET
0 5 10 15

THIRD FLOOR



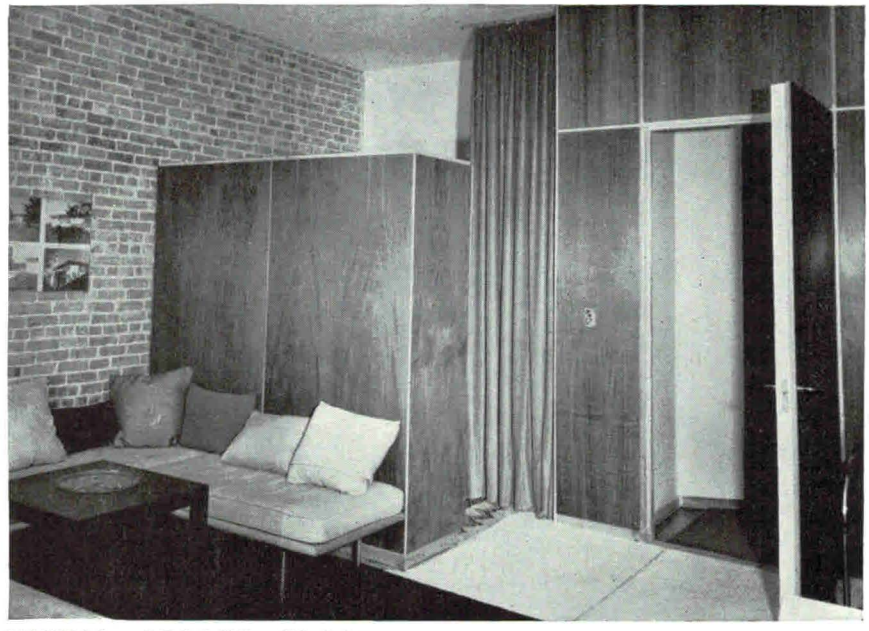
DINING ROOM—FIRST FLOOR

John Beinert Photos



BEDROOM—SECOND FLOOR

of removing the old windows and installing more suitable sash was prohibitive, the expedient of hanging thin curtains which reach from floor to ceiling was adopted, with excellent effect, as can be seen from the illustrations of the interiors. The success of the remodeling can be seen in the rent roll, which jumped from $1,200 to $4,500 per year.



STUDIO—SECOND FLOOR

CONSTRUCTION OUTLINE

WINDOWS
New sash—wood, special, N. Y. Dormer & Sash Co.
Glass—Mississippi Wire Glass Co.
FLOORS
Living room, bedrooms and halls—wood. Bathrooms—covered with rubber.
WALL COVERINGS
Plaster, brick construction exposed and U.S. Plywood Co., Inc., Flexwood paneling.
PAINTING
Interior: Walls and ceilings—Texolite, U.S. Gypsum Co.
ELECTRICAL INSTALLATION
Lighting fixtures—Kurt Versen, Inc.

REMODELED HOUSE FOR LAWRENCE OTTINGER, SCARSDALE, N. Y.

Samuel H. Gottscho

ROBERT CARSON & DONALD CAMPBELL, ARCHITECTS

FLORENCE BAKER, LANDSCAPE ARCHITECT

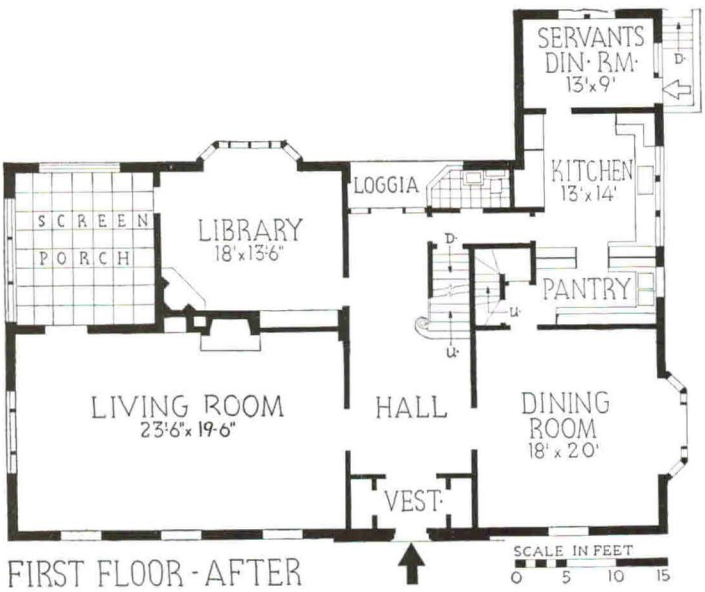
BEFORE

CONSTRUCTION

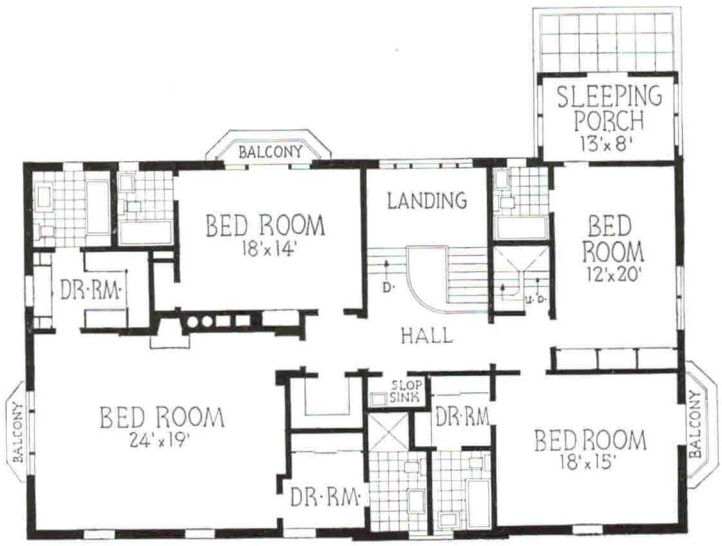
The alteration of such residences as this is by no means uncommon. The plan can be readily altered to produce a more livable layout, and the exterior presents no great difficulties. It is unusual, however, to find so complete a change. The initial problem was presented by the location of the first floor, which was four feet above grade; its solution, as can be seen below, was the creation of a series of terraces around the house, which not only tie it in more closely to the ground, but provide definitely usable living space in warm weather. Changes in the plan opened the entrance hall through to the rear, moved the dining room to the southeast corner, where it belongs, and created a separate suite of children's bedrooms on the second floor. Brick veneer proved to be a satisfactory and inexpensive material for the alteration; it was painted a light, warm gray, with white used for ironwork, sash, and trim.

Samuel H. Gottscho

HOUSE FOR LAWRENCE OTTINGER

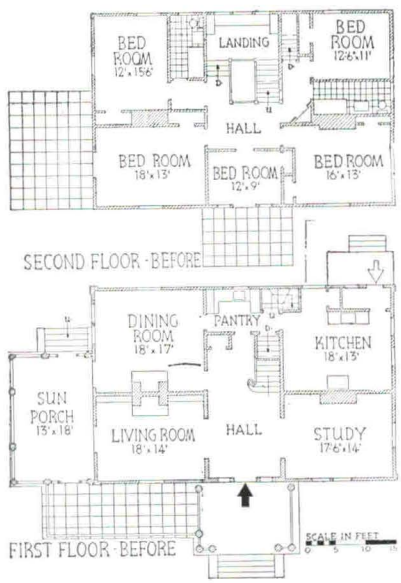


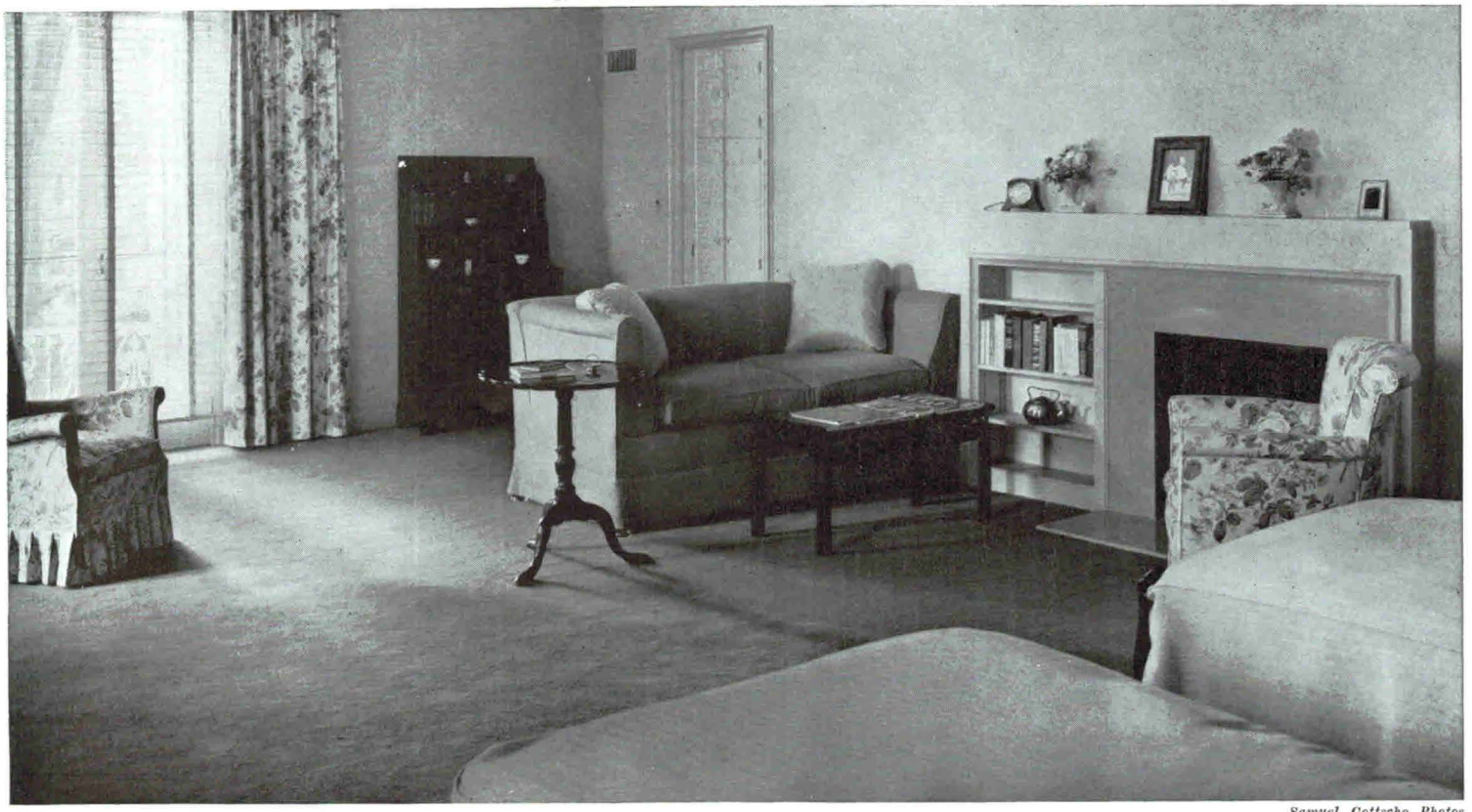
FIRST FLOOR - AFTER



SECOND FLOOR - AFTER

ENTRANCE





MASTER BEDROOM

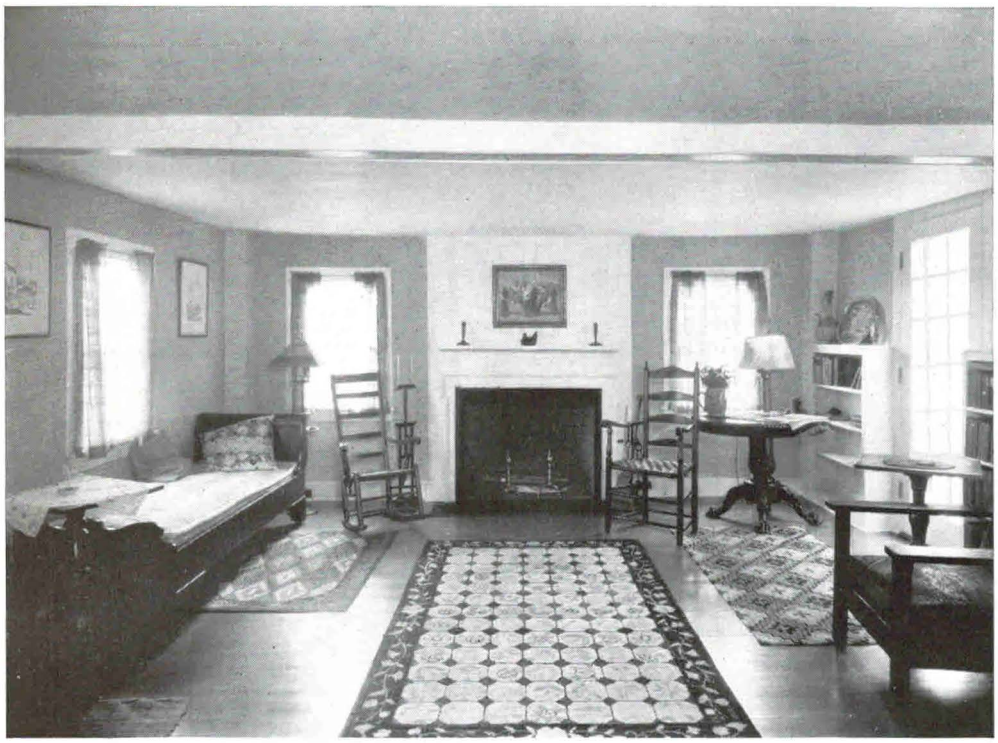
Samuel Gottscho Photos

PORCH

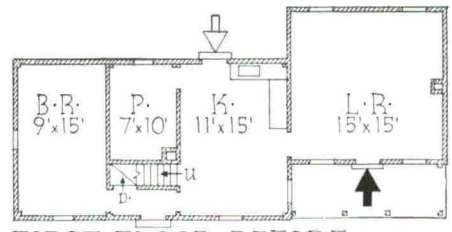
CONSTRUCTION OUTLINE

FOUNDATION
Walls—stone with cement mortar. Cellar floor—cinder concrete. Waterproofing—R. I. W., Toch Brothers, Inc.
STRUCTURE
Exterior walls—4 in. brick veneer, heavy paper sheathing, 4 in. studs and plaster. Floor construction—wood beams and flooring.
ROOF
Covered with slate. Decks—ply membrane and cement.
CHIMNEY
Lining—terra cotta. Dampers and throats—H. W. Covert Co.
SHEET METAL WORK
Flashing, gutters and leaders—copper.
INSULATION
Outside walls and roof—rock wool. Weatherstripping—zinc and copper.
WINDOWS
Sash—wood casement. Glass—double strength, quality A. Screens—copper mesh on wood frames, snap-on type.
STAIRS
Treads—oak. Risers and stringers—painted birch. Handrail—teakwood.
FLOORS
Living room and bedrooms—strip oak. Hall and library—oak plank. Kitchen and bathrooms—rubber tile on plywood, Haskelite Mfg. Co.
WALL COVERINGS
Living room—paneling. Bedrooms and halls—wallpaper. Bathrooms—Micarta finished wainscoting, Westinghouse Electric & Mfg. Co.
HARDWARE
Interior and exterior—brass.
ELECTRICAL INSTALLATION
Wiring—flexible conduit. Switches—toggle.
KITCHEN EQUIPMENT
Range—gas. Refrigerator—electric.
PLUMBING
All fixtures by Standard Sanitary Mfg. Co. Pipes: Soil—cast iron. Water—brass. Hot water heater—immersion coil in boiler.
HEATING AND AIR CONDITIONING
Completely air conditioned except in service section. Split system, steam and forced warm air, humidification and cooling. Radiators—convector type.

REMODELED GUEST HOUSE ON ESTATE IN LYME, CONN.



LIVING ROOM—DINING ROOM

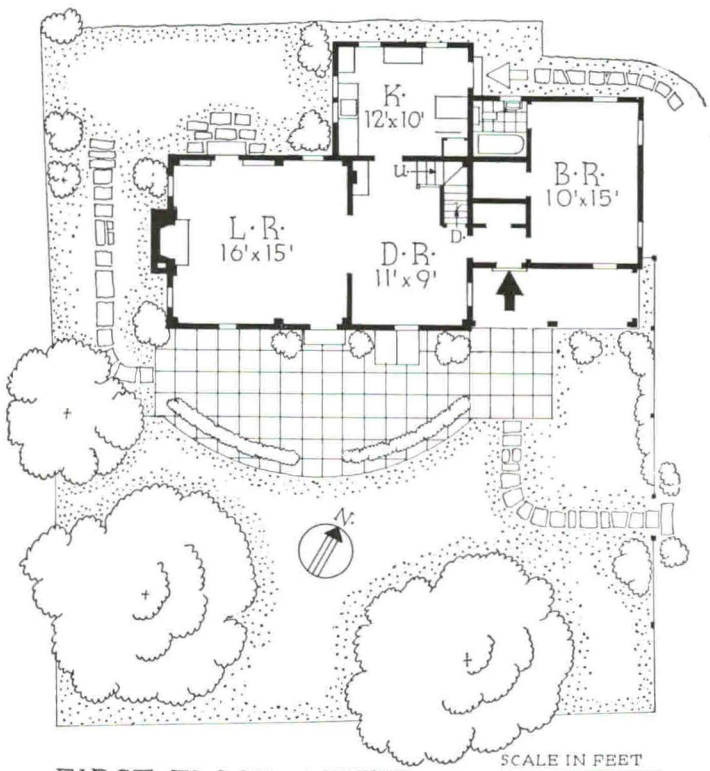


FIRST FLOOR-BEFORE

BEFORE

The unprepossessing subject of this alteration consisted of a one-story house about 200 years old, and an awkward two-story wing added about 40 years ago. The remodeling was done chiefly because it was a question of repairing the house or letting it collapse. The budget did not permit any alteration of the mass, and the money available, a little over $4,000, was used for repairing the foundations, replacing floor joists, replastering, plumbing, and painting. The house is painted a deep red, with white trim both inside and out. In spite of its small size it was possible to obtain three bedrooms of good size, a living room, and a dining room. Used as a guest house, no maid's room has been provided, as service is furnished from the large house nearby.

SECOND FLOOR AFTER



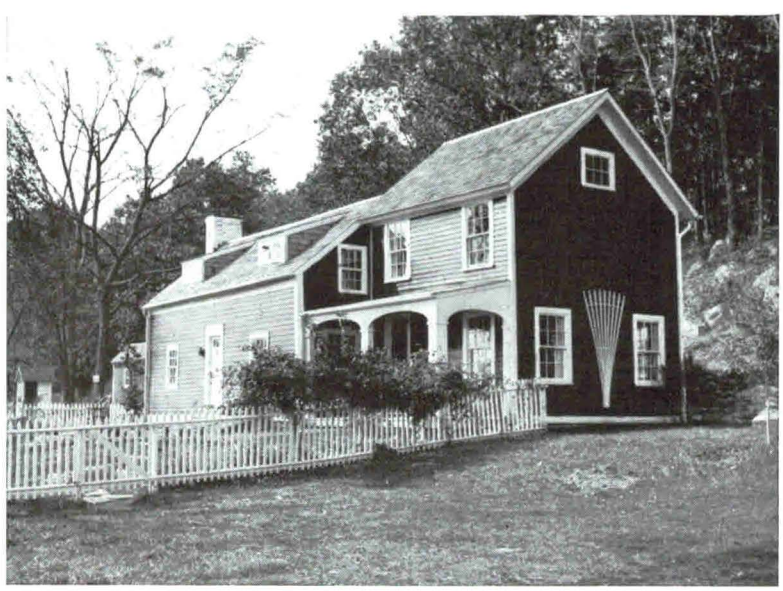
FIRST FLOOR-AFTER

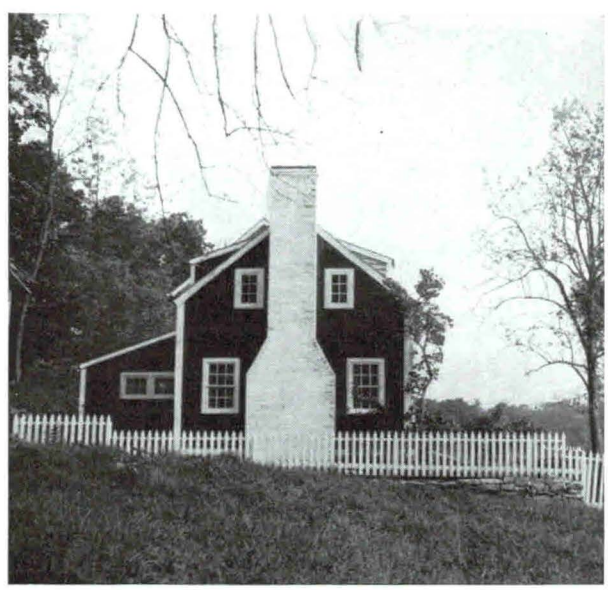
SCALE IN FEET
0 5 10 15

BEDROOM IN ATTIC

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—siding, paper, wood sheathing, 2 x 4 in. studs, wood lath and plaster on new section. Interior partitions—wood frame and plaster.
ROOF: Covered with wood shingles.
CHIMNEY: Damper—H. W. Covert Co.
SHEET METAL WORK: Copper throughout.
INSULATION: Roof—Cabot's Quilt, Samuel Cabot, Inc. Celotex between old rafters; Celotex between rafters left exposed, The Celotex Co. Weatherstripping on doors—Chamberlin Metal Weather Strip Co.
FLOORS: Living room, bedrooms and halls—wide boards painted with solid color, Stanley Chemical Co. Kitchen and bathrooms—linoleum.
PAINTING: All paint material by Stanley Chemical Co.
ELECTRICAL INSTALLATION: Wiring system—BX cable. Fixtures—Bradley & Hubbard.
KITCHEN EQUIPMENT: Range—Universal electric, Landers, Frary & Clark. Refrigerator—General Electric Co. Sink—two-compartment tub and sink.
BATHROOM EQUIPMENT: Lavatory, tub and toilet—Standard Sanitary Mfg. Co. Seat—C. F. Church Mfg. Co.
PLUMBING: Pipes: Soil—cast iron. Water—brass.
HEATING: Hot air, one large register centrally located. Hot water heater—General Electric Co.



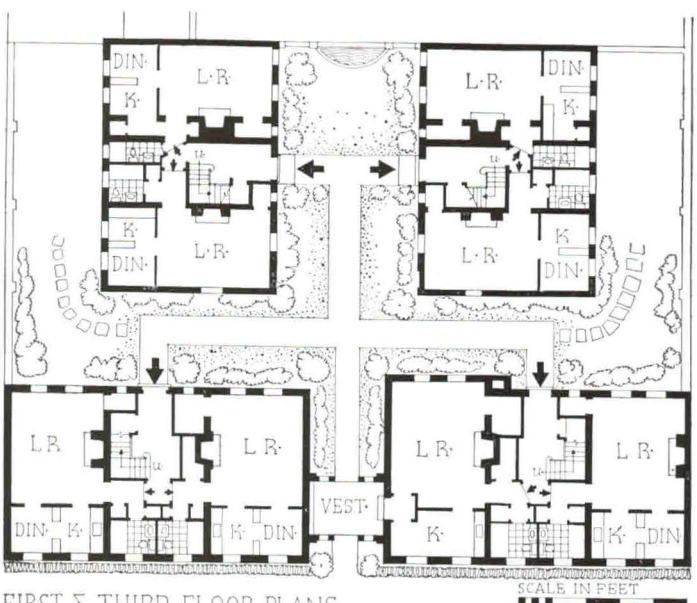


REMODELED APARTMENTS IN PHILADELPHIA, PA.

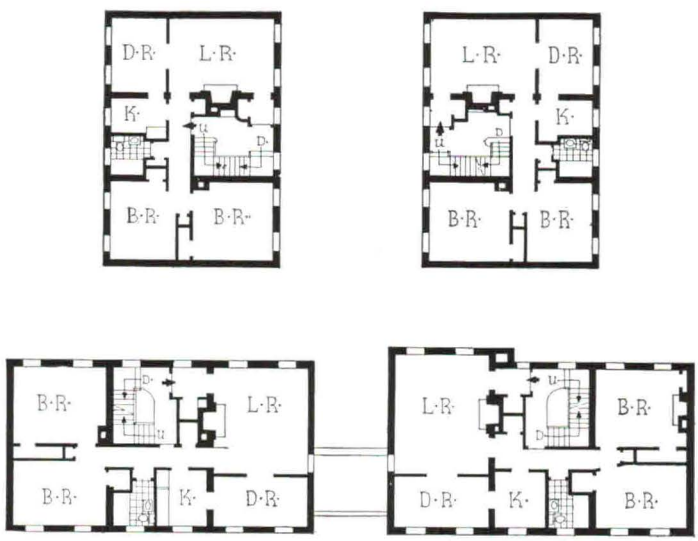
ENTRANCE

C. V. D. Hubbard Photos

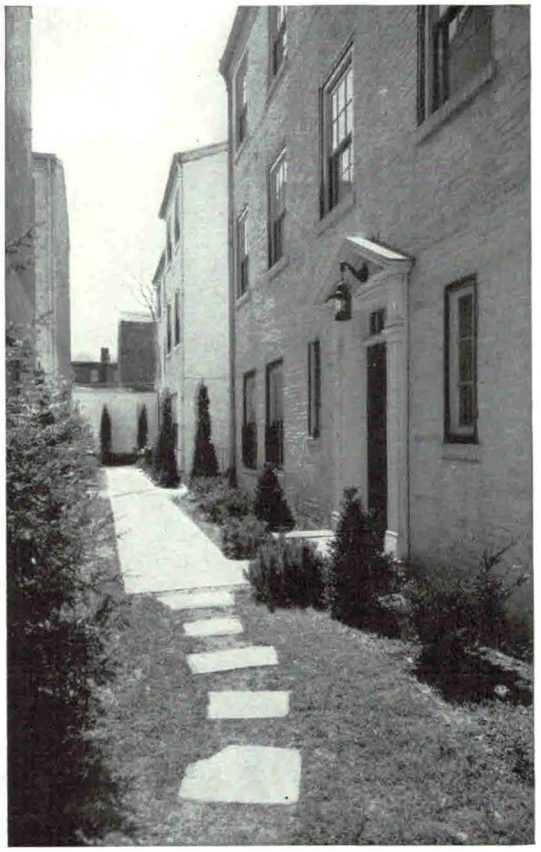
BEFORE



FIRST & THIRD FLOOR PLANS



SECOND FLOOR

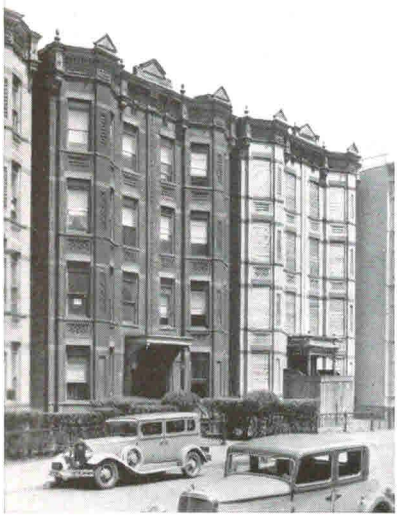


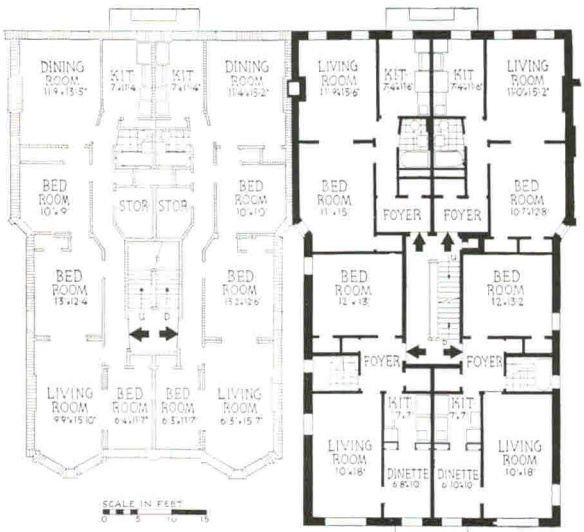
The income possibilities of depreciated properties are well illustrated by this example. With an original mortgage of $42,000, the properties were finally sold for $8,000 to the present owner, who spent an additional $53,000 to produce what is to all intents and purposes a new building. The twelve small buildings forming the original parcel were recombined into twenty apartments which rent at $45 to $75 per month, giving a total yearly income of $12,480. When taxes, operating costs, etc., are deducted there remains a net income of $9,348, which represents a very satisfactory return on the original investment. The owner notes that on property of this kind a very high depreciation factor must be included, but that even after this and other contingencies are considered, such real estate ventures are still profitable. In spite of the location of these apartments in a run-down section of the city there has been no difficulty in renting them.

CONSTRUCTION OUTLINE

STRUCTURE
Exterior walls—existing brick, refurred studs and plaster.
ROOF
Covered with asphalt roofing, Barrett Co.
SHEET METAL WORK
Flashing, and gutters—galvanized iron.
WINDOWS
Sash—wood, double hung. Glass—Pittsburgh Plate Glass Co.
FLOORS
Living rooms and bedrooms—hardwood. Kitchen and landings—linoleum, Armstrong Cork Products Co.
WALL COVERINGS
Kitchens—Sanitas, Standard Textile Products Co. Bathrooms—tile.
WOODWORK
Trim and doors—Colonial, white pine.
HARDWARE
Interior and exterior—Lockwood Hardware Mfg. Co.
PAINTING
Interior: Walls and ceilings—Texolite, U. S. Gypsum Co. Floors, trim and sash—Sherwin-Williams Co. Exterior paint by Barrett Co.
ELECTRICAL INSTALLATION
Wiring system—BX. Switches—Hart & Hegeman.
PLUMBING
All fixtures by Standard Sanitary Mfg. Co. Pipes—Youngstown Pressed Steel Co.
HEATING
Radiators and valves—American Radiator Co. Boiler—Delco oil fired, Delco Appliance Corp. Thermostats—Minneapolis-Honeywell Regulator Co. Hot water heater—Pennsylvania Range Co.

REMODELED APARTMENT HOUSE, BROOKLYN, N. Y.





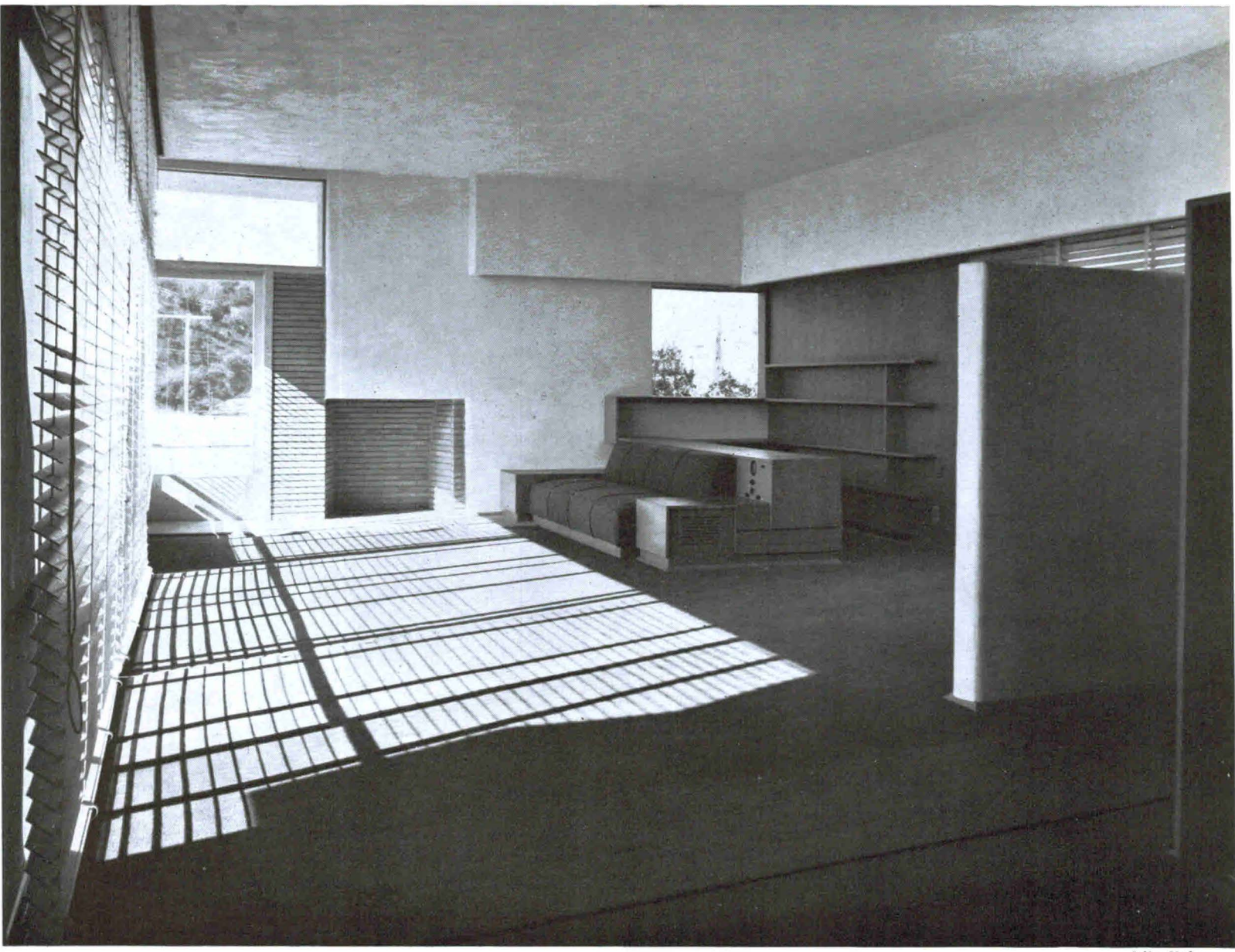
TYPICAL FLOOR - BEFORE TYPICAL FLOOR - AFTER

ADOLPH GOLDBERG, ARCHITECT

The two buildings which formed the basis of this alteration consisted of one which was entirely abandoned and another which was 25 per cent rented. Purchased at a cost of $24,000, and remodeled for an additional expenditure of $60,000, the buildings now contain 32 three-room apartments which produce a gross rental of $17,000 per year. Alterations consisted of removing the front walls, extending the buildings 10 ft. toward the street, installation of new equipment, new stairs, floors, electric wiring, and complete kitchens.

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—face brick, wood furring, wood lath and 3 coats plaster. Interior partitions—studs, metal and wood lath and plaster. Floor construction—⅞ in. sub-floor, ⅞ in. parquet, No. 1 oak. Ceiling—metal lath and plaster.
ROOF: Five-ply felt and pitch, slag finish.
SHEET METAL WORK: Flashing—16 oz. copper.
WINDOWS: Sash—Fenestra steel casement, Detroit Steel Products Co. Glass—double thick, quality B.
STAIRS: Steel; treads finished with terrazzo.
FLOORS: Living room and bedrooms—oak parquet. Kitchen—linoleum, Armstrong Cork Products Co. Bathrooms—tile.
TRIM: Steel throughout.
HARDWARE: Interior—bronze plated. Exterior—solid bronze.
PAINTING: Walls, ceilings and sash—3 coats paint; calcimine in living rooms and bedrooms.
KITCHEN EQUIPMENT: Ranges—Odin Beauty, Odin Stove Mfg. Co. Refrigerators—Norge Corporation, Stewart-Warner-Alemite Corp. and Frigidaire Sales Corp. Sinks—Standard Sanitary Mfg. Co.
BATHROOM EQUIPMENT: Fixtures by Standard Sanitary Mfg. Co. Cabinet by Columbia Metal Box Co.
PLUMBING: Pipes: Soil—cast iron. Water—brass.
HEATING: Steam. Boiler—coal fired, Fitzgibbons Boiler Co., Inc. Radiators—American Radiator Co. Hot water heater—copper coil in boiler.



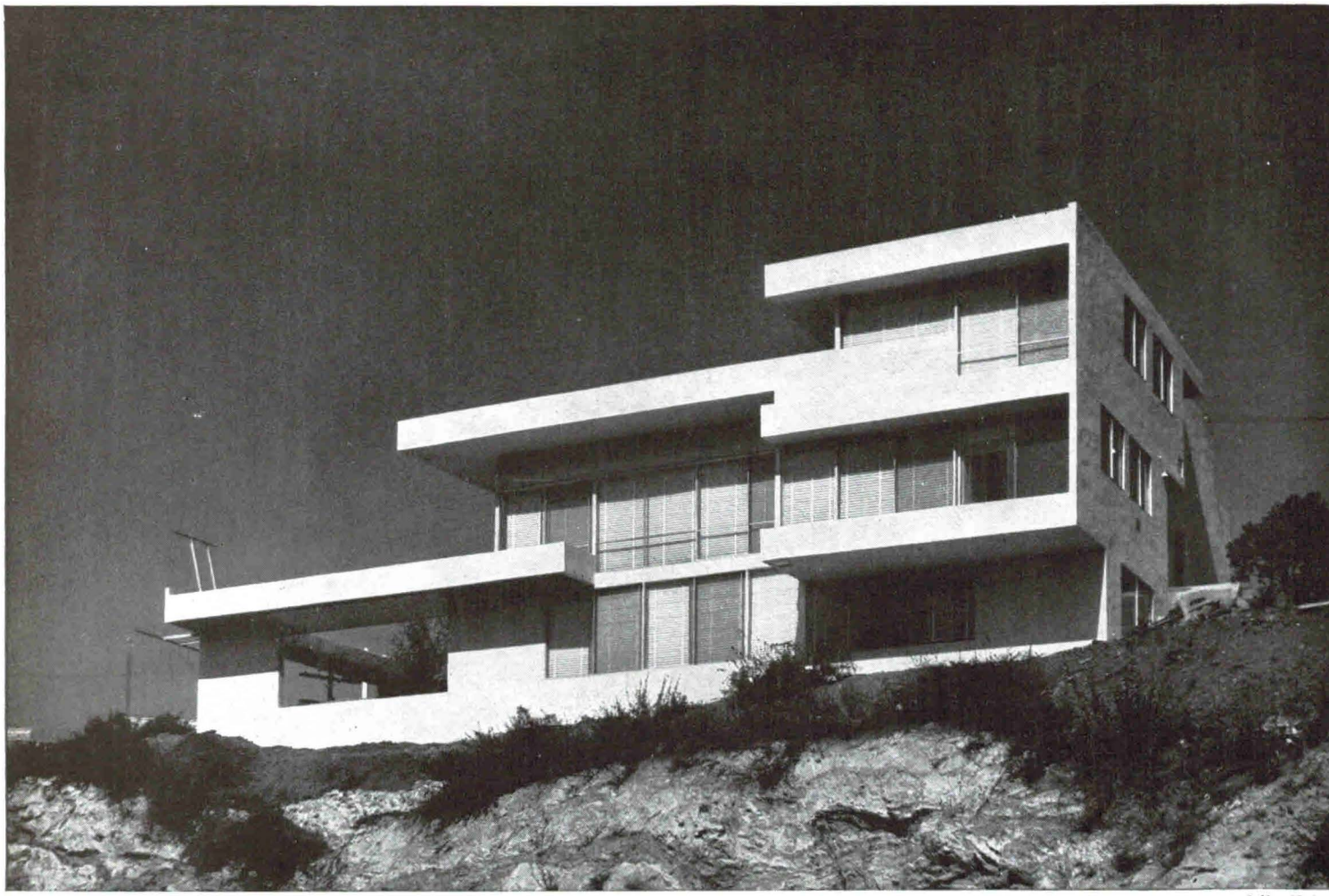
Julius Shulman

HOUSE FOR C. C. FITZPATRICK, LOS ANGELES, R. M. SCHINDLER, ARCHITECT

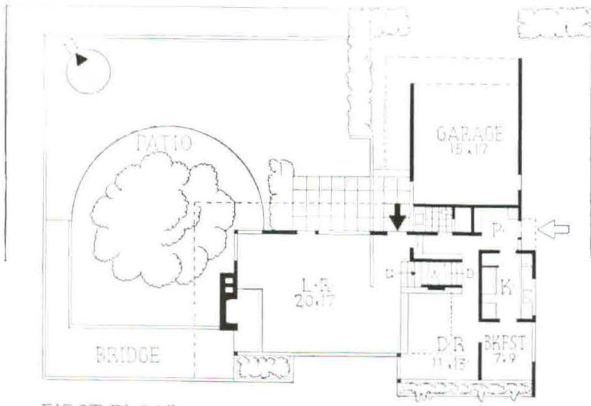
The traditional Southern house is almost invariably characterized by an avoidance of sunlight: small windows, sheltered courtyards, and heavy awnings are the rule. Where a large glass area is desired (in this instance because of the view), some form of projecting shelter inevitably becomes an important part of the design. Even the terrace off the living room has been so planned that it becomes a protection for the loggia below. The plan of the main rooms is open, with the partition between the living room and entrance hall kept low in order that the plane of the ceiling might not be interrupted. A supplementary living room occupies the level below, with full-height windows made possible by the drop in ground level. Two bedrooms, each with a separate roof deck, are provided on the second floor.

BUILDING COSTS VARY FROM MONTH TO MONTH, FROM TOWN TO TOWN. COSTS QUOTED IN THE FORUM ARE IN ALL CASES SUPPLIED BY THE ARCHITECT, ARE USEFUL AS A RELATIVE GUIDE IN COMPARING ONE HOUSE WITH ANOTHER, BUT IN NO CASE ARE TO BE INTERPRETED AS A LITERAL AND LOCAL CURRENT INDEX.

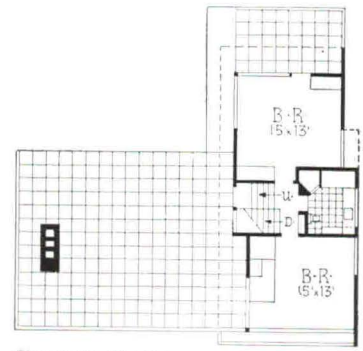
FITZPATRICK HOUSE R. M. SCHINDLER, ARCHITECT



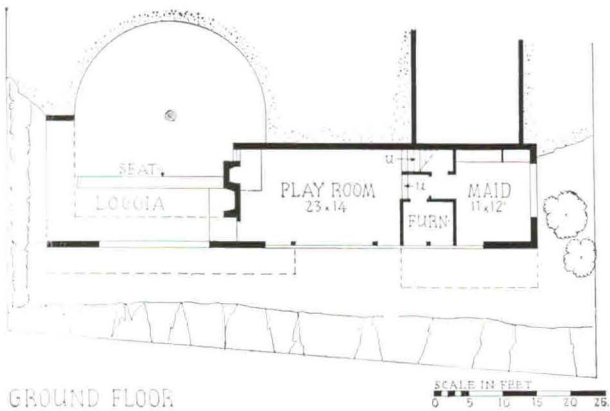
Julius Shulman



FIRST FLOOR



SECOND FLOOR



GROUND FLOOR

CONSTRUCTION OUTLINE

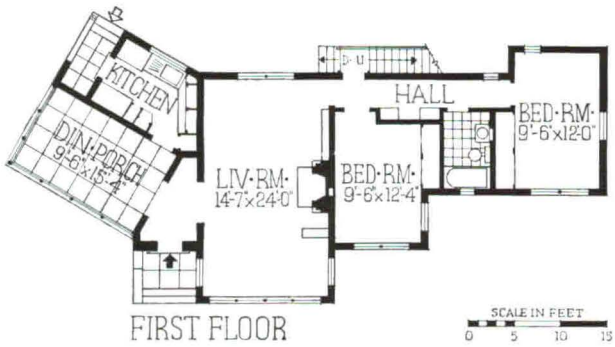
FOUNDATION: Walls—concrete. Cellar floor—concrete on fill.
STRUCTURE: Exterior walls—brush coat, 2 coats stucco, wire mesh, 15 lb. felt, 2 x 4 in. studs, wood lath and plaster. Floor construction—wood frame. Ceilings—wood lath and plaster.
ROOF: Composition roofing.
WINDOWS: Sash—sliding sheet metal with bronze weatherstripping. Glass—3/16 in. glass. Screens—metal frame, sliding.
STAIRS: Oak throughout.
FLOORS: Living room, bedrooms and halls—wood, carpet covered. Kitchen and bathrooms—linoleum covered.
WALL COVERINGS: Main rooms—stucco. Kitchen and bathrooms—porcelain enameled metal tile.
WOODWORK: Trim, cabinets and doors—Oregon pine; ash finish in living room.
HARDWARE: Interior and exterior—Schlage Lock Co.
PAINTING: Interior: Trim—stained. Sash—aluminum paint. Exterior: Sash—aluminum paint.
BATHROOM EQUIPMENT: All fixtures by Standard Sanitary Mfg. Co.
HEATING AND AIR CONDITIONING: Radiators—Pacific, U.S. Radiator Co. Boiler—gas fired.

HOUSE FOR CLOYD HEAD, COCONUT GROVE, FLA.

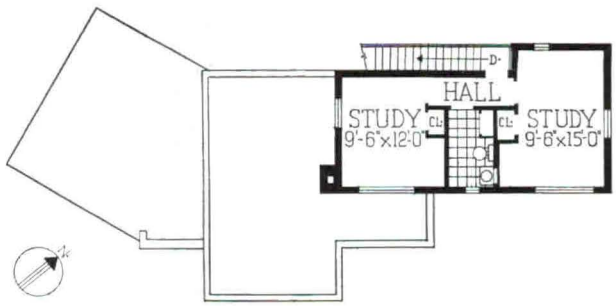
CHESTER HART
DESIGNER

MARION I. MANLEY
ASSOCIATE ARCHITECT

Richard B. Hoit Photos



FIRST FLOOR



SECOND FLOOR

Work space and shelter for a family of three with a limited budget was the essential problem here. Both husband and wife are writers, and each required a separate study. The dining porch is a pleasant innovation, possible only in a year-around mild climate. The masonry walls are not only structural, but provide the inside and outside finish as well. Trim was eliminated wherever possible. The inadvisability of attempting to apply ornament to the modern house is demonstrated by the incongruous tiled doorway.

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—4 x 4 x 12 in. vibrated concrete blocks, exposed inside and out, pointed up and painted. Interior partitions—concrete blocks, same as outside walls, and wood studs finished with plywood. Floor construction: First—reenforced concrete, cement finish. Second—wood joist with wood flooring and Homasote finished ceilings, Homasote Co.

ROOF: Construction—frame, covered with 15-yr. Certain-teed tar and gravel roof, Certain-teed Products Corp.

CHIMNEY: Terra cotta flue lining. Heatilator with ducts to two second floor studies, Heatilator Co.

SHEET METAL WORK: Flashing, gutters and leaders—16 oz. copper.

INSULATION: Roof—Homasote board, Homasote Co. Weatherstripping—Barland Weatherstrip Material Co.

WINDOWS: Sash—Lupton steel residence casements, Michael Flynn Mfg. Co. Glass—double strength, quality A, Libbey-Owens-Ford Glass Co. Screens—Brown-Everhard Co.

FLOORS: First—cement with 2 coats of Color-wax, Master Builders Co. Second—oak.

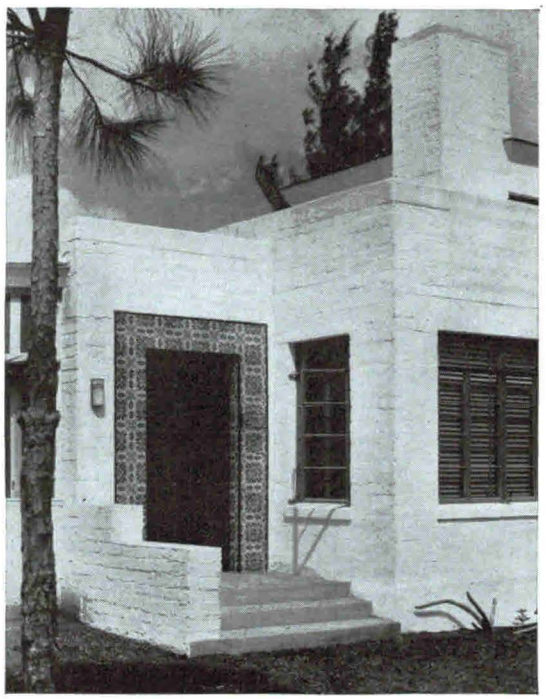
HARDWARE: Interior and exterior—Schlage Lock Co.

PAINTING: Interior: Walls—F. O. Pierce Co. Ceilings—Craftex Co. and Sec paints by Louisville Mfg. Co. Exterior—Sec cement coat, Louisville Mfg. Co.

ELECTRICAL INSTALLATION: Wiring system—conduit. Fixtures—Radiant Mfg. Co.

KITCHEN EQUIPMENT: Refrigerator—General Electric Co.

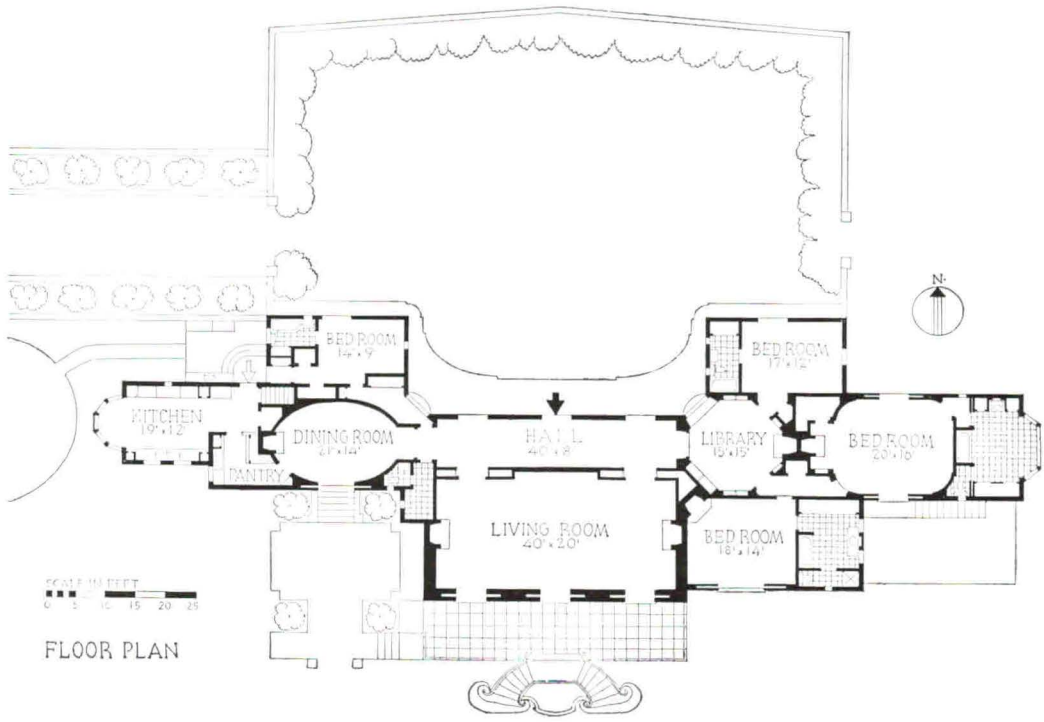
PLUMBING: All fixtures by Standard Sanitary Mfg. Co. Pipes: Soil—cast iron. Water—galvanized iron. Water heater—solar.



ENTRANCE DETAIL

HOUSE FOR ALLEN BREED WALKER, MONTECITO, CALIF.

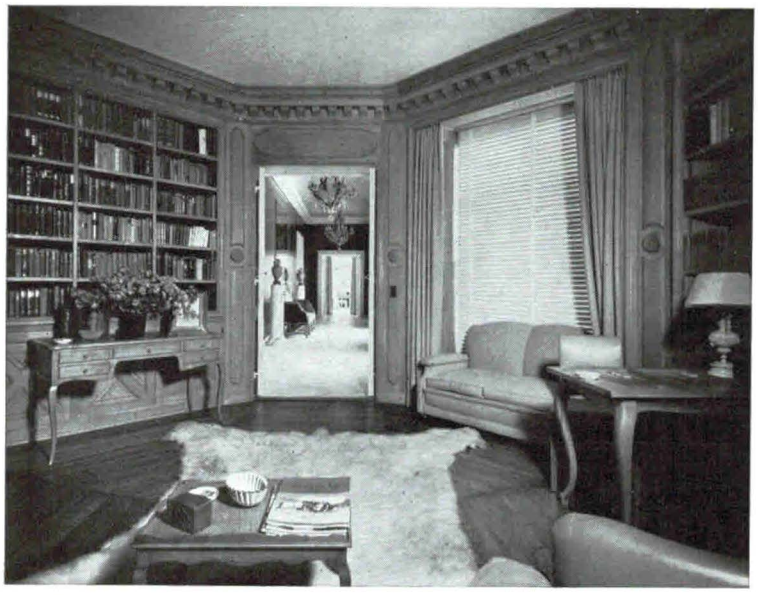
Fred R. Dapprich Photos



FLOOR PLAN

More formal than the average four-bedroom residence, the character of this house was set by the owner's requirements and its layout by the character of the site. The owner wanted a modernized French design, a flat roof, a living room 18 x 40 ft., an elliptical dining room, three master bedrooms, one servant's room, and a plan which placed all of these rooms on one level. The unusual relationship of the bedrooms and library was also stipulated by the owner. A natural alley of live oaks determined the placing of the living room, and the strung-out plan was dictated by the contours and the view of the sea below. Of particular interest is the extensive use of sliding doors, a method of saving wall space which can be successfully adopted in a climate where infiltration presents no serious problem.

LIVING ROOM



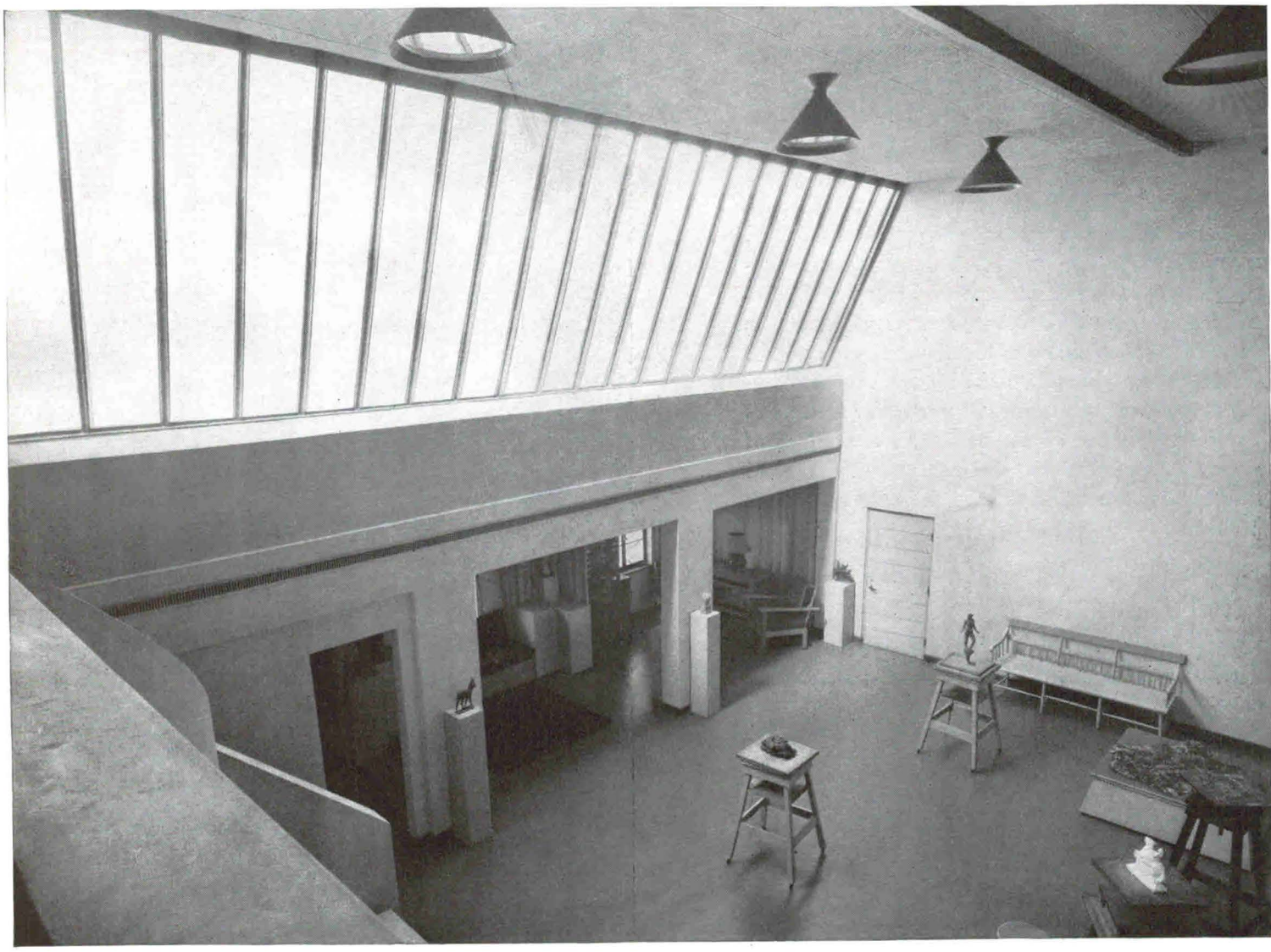
LIBRARY

KITCHEN

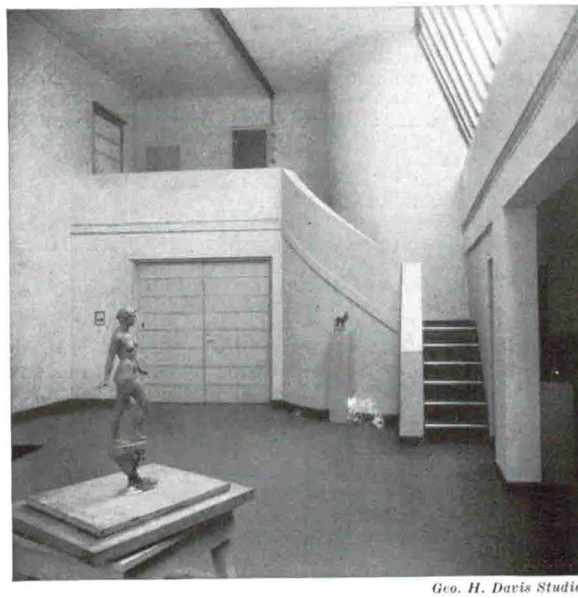
CONSTRUCTION OUTLINE

FOUNDATION
Walls and cellar floor—concrete. Waterproofing: Walls—interior surface—Horn's Metalon, A. C. Horn Co.
STRUCTURE
Exterior walls—3 coats plaster with 2 coats Bondex white, The Reardon Co., on 18 gauge, ¾ in. galvanized iron chicken wire, 1 layer 15 lb. felt nailed to studs. Inside: rock lath, U.S. Gypsum Co., with 18 gauge, 1 in. mesh chicken wire and 2 coats plaster and canvas. Floor construction—O. P. joists, redwood sills, O. P. sub-floor.
ROOF
Asbestos roofing, Johns-Manville, Inc.
CHIMNEY
Terra cotta flue lining and chimney caps, Gladding, McBean & Co. Dampers—Peerless Mfg. Co.
SHEET METAL WORK
Flashing and leaders—26 gauge Armco galvanized iron, The American Rolling Mill Co.
INSULATION
Roof—1 in. rock wool Quilt, Johns-Manville, Inc.
WINDOWS
Sash—wood, double hung and casement. French doors—sliding into 26 gauge galvanized iron pockets on Grant Pulley & Hardware Co. tracks. Glass—double strength, quality A, Libbey-Owens-Ford Glass Co.
FLOORS
Living room and bedrooms—oak. Entrance hall, powder room and bathrooms—Alaska marble. Kitchen—linoleum, Armstrong Cork Products Co.
WALL COVERINGS
Living room and one bathroom—California white pine paneling, painted. Library—Japanese oak paneling. Kitchen and bathroom—plaster, Sanitas and paint, Standard Textile Products Co.
HARDWARE
Interior—special, shiny brass finish, West & Co.
ELECTRICAL INSTALLATION
Wiring system—Steeltubes conduit, Steel & Tubes, Inc. Switches—General Electric Co. and Bryant Electric Co.
KITCHEN EQUIPMENT
Range—gas, George D. Roper Corp. Refrigerators—gas, Electrolux, Servel, Inc. Counter tops—Alaska marble.
BATHROOM EQUIPMENT
All fixtures by Standard Sanitary Mfg. Co. Seat—C. F. Church Mfg. Co. Medicine cabinet—Hall-Mack, steel with side lights, Hallenscheid & McDonald.
PLUMBING
Pipes: Soil—cast iron. Vent—galvanized steel. Hot water—streamline copper, Chase Brass & Copper Co. Cold water—galvanized steel. Water softener—Crane Co.
HEATING AND AIR CONDITIONING
Indirect, filters, humidification, return air ventilation and gas-fired boiler. Complete system by General Electric Co. Hot water heater—American Radiator Co.

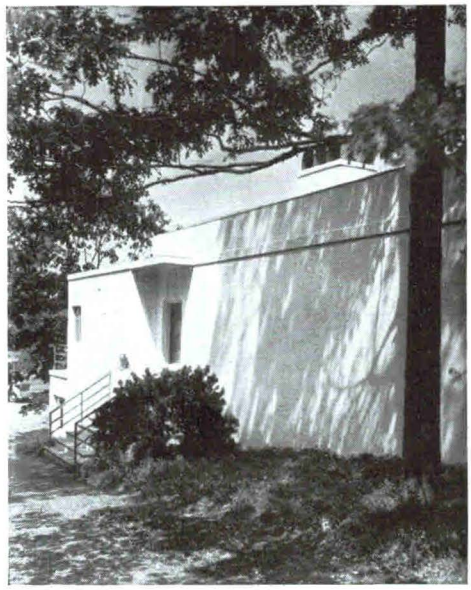
SCULPTOR'S STUDIO, DOVER, MASS.



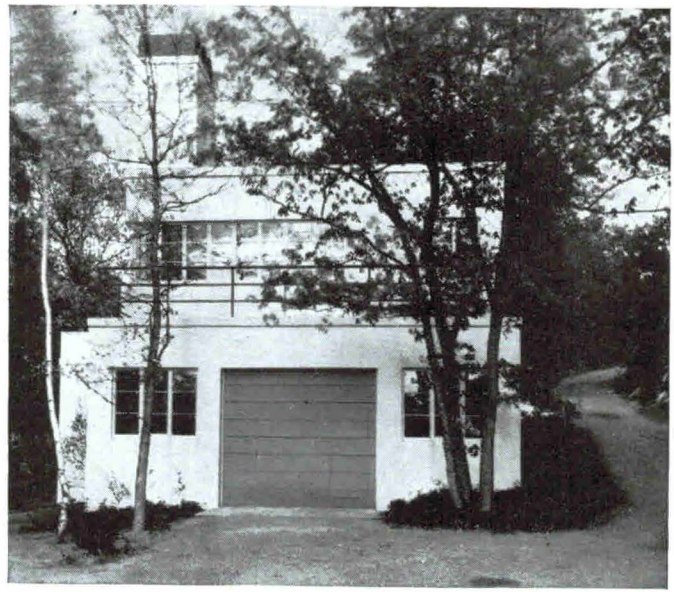
Of basic importance in the design of a sculptor's studio is the provision of adequate natural illumination: the satisfactory solution of this problem is generally the factor about which the entire design develops. Clerestory lighting is frequently indicated because of the height required in the studio, and in this case it was possible to place a large window running from wall to wall which gives a maximum of glareless illumination. Under the window is a long, narrow alcove, ideally located for the best view of the brightly lighted studio, and suitable for the entertainment of visitors and clients. On the mezzanine level there is a sitting room, isolated to give greater privacy. The shop, used for the building of armatures, making plaster casts, etc., has large openings at either end so that bulky objects may be conveniently moved in and out of the building. Cubage: 57,177. Cost: (including all built-in furniture) $24,000, at about 42 cents a cubic foot.



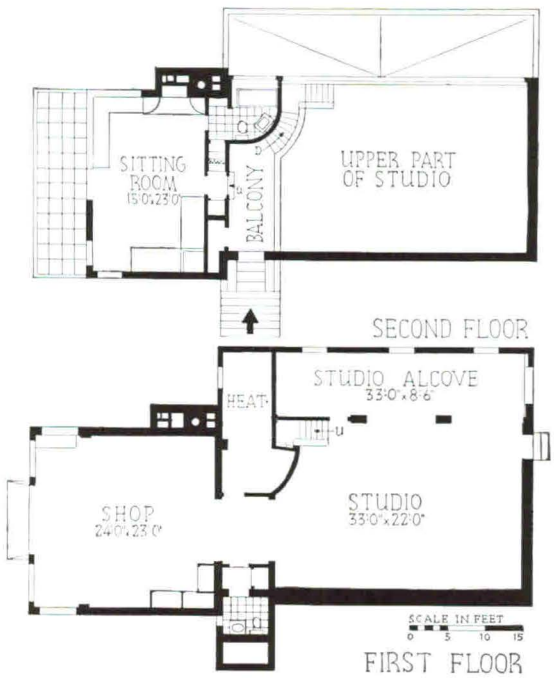
Geo. H. Davis Studio



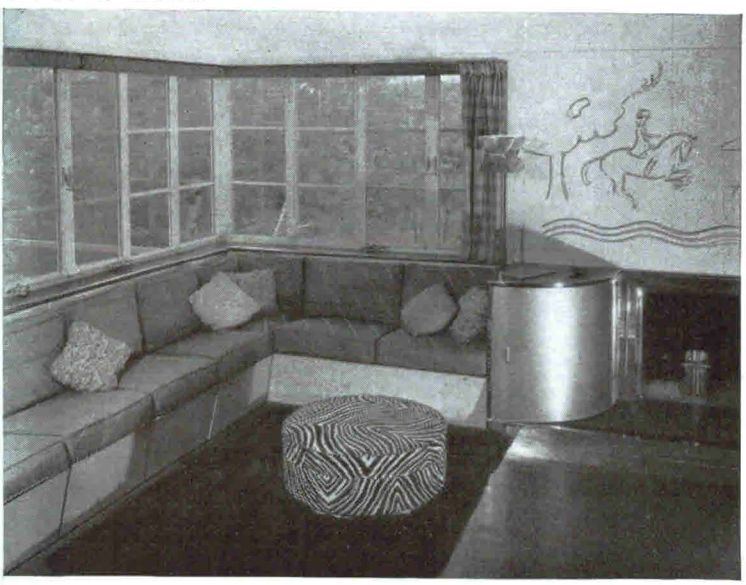
ENTRANCE



STUDIO ENTRANCE



SITTING ROOM

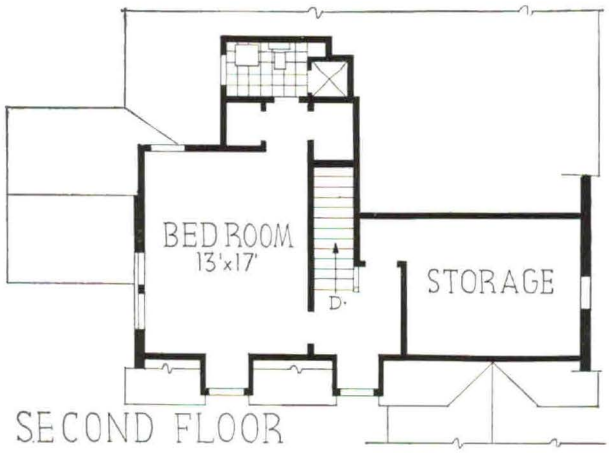


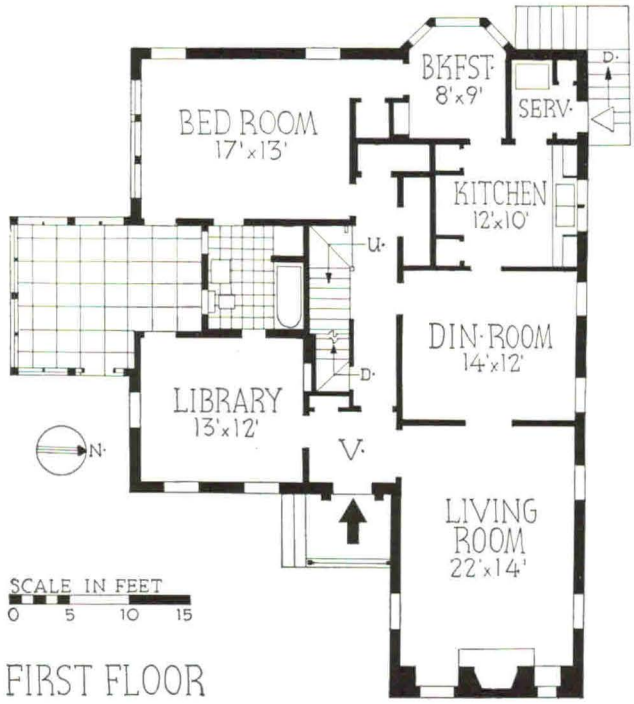
CONSTRUCTION OUTLINE

FOUNDATION
Walls—12 in. concrete, continuous. Waterproofing—foundation coat, The Truscon Laboratories.
STRUCTURE
Exterior walls—Cinucor blocks, Cinder Concrete Units Corp., furred and plastered on inside (except in shop); California stucco on outside. Interior partitions—plaster on wood studs. Floor construction: First floor shop and heater room—concrete. All others—wood. Ceilings—plaster, except Celotex acoustical tile in studio, The Celotex Co.
ROOF
Built up 5-ply tar and gravel roofing on wood frame.
SHEET METAL WORK
Flashing—3 lb. lead and 16 oz. copper, lead coated where exposed. Leaders—3 in. cast iron drains in partition with roof pan and strainers.
INSULATION
Partitions between heater room, studio and bath—filled with rock wool, Johns-Manville, Inc. Roof—1 layer each Type B and C Master Metal Insulation, Reynolds Metal Co., installed over and under roof beams. Terrace floor—2 in. Corkboard under concrete slab, Armstrong Cork Products Co.
WINDOWS
Studio window—G. Drouve Co.; all others, Hopes Windows, Inc. Glass in sitting room—Thermopane, Libbey-Owens-Ford Glass Co. Screens—Rolscreens, Rolscreen Co.
STAIRS
Risers and treads—⅞ in. N. C. pine covered with linoleum with metal nosing.
FLOORS
Wood throughout, covered with linoleum.
WOODWORK
Trim—white wood. Chair rail—metal. Window sills in sitting room—linoleum with metal nosing. Shop doors—Overhead Door Co.
PAINTING
Interior: Walls in sitting room and bath—painted 4 coats lead and oil. Shop, heater room and lavatory—2 coats of Sunflex, Craftex Co.
ELECTRICAL INSTALLATION
Wiring system—rigid conduit in masonry walls or floors, BX elsewhere. Fixtures—special, Bigelow Kennard & Co.
PLUMBING
All fixtures by Standard Sanitary Mfg. Co. Pipes: Soil—cast iron. Water—iron size brass.
HEATING AND AIR CONDITIONING
Filtering, humidifying. Boiler—The H. B. Smith Co. Oil burner—Timken, Silent Automatic Co. Hot water heater—electric.

HOUSE FOR MR. & MRS. HARRY B. MacRAE, DALLAS, TEXAS

The planning of suitable accommodations can be considerably complicated by an irregular and thickly wooded site. In this instance it was necessary to lay out the house so that a minimum of good trees was destroyed, and the grades were followed as closely as possible to eliminate cutting and filling. At the rear of the lot, the sharp slope permitted placing garage and laundry under the kitchen. The library is immediately adjacent to the front door, as this room is used for business as well as social purposes, and the vestibule has been designed so that the rest of the house can be closed off, for the same reason. The guest bedroom occupies the first floor for privacy, and its bathroom has been placed so that it may serve as a guest lavatory. On the second floor the entire space is given over to the owner's bedroom and a large storage room. Cubage: 26,936. Cost: $9,500, at about 35 cents a cubic foot.





CONSTRUCTION OUTLINE

FOUNDATION
Walls—concrete beam and piers. Cellar floor—5 in. concrete floor slab. Waterproofing on walls and floor—Anti-Hydro Waterproofing Co.

STRUCTURE
Exterior walls—painted brick and stone veneer on first floor; cypress clapboards on second, over 2 x 4 in. yellow pine studs, shiplap and building paper. Plaster and wood paneling for interior finish. Floor construction—2 x 8 in. yellow pine joists, sub-floor, Sisalkraft paper, The Sisalkraft Co., and oak floor.

CHIMNEY
Lining—fire brick. Marble facing and hearth—Vermont Marble Co. Mantel—mill-made gumwood.

SHEET METAL WORK
Flashing, gutters and leaders—Armco, galvanized iron, American Rolling Mill Co.

INSULATION
Second floor—balsam wool, Wood Conversion Co. Roof—rock wool, Johns-Manville, Inc. Weatherstripping on all doors and windows—Acme Co.

WINDOWS
Sash—double hung and casement, white pine. Glass—single strength, quality A, Pittsburgh Plate Glass Co.

FLOORS
Living room, bedrooms and halls—select white oak. Kitchen—yellow pine covered with linoleum, Armstrong Cork Products Co. Bathrooms—tile, Mosaic Tile Co.

HARDWARE
Interior—Schlage Lock Co. Exterior—blind hardware, Lull & Porter. Garage doors—Overhead Door Corp.

PAINTING
Interior: Plaster walls and ceilings—3 coats of flat paint. Wood panel walls and floors—stain, shellac and wax. Exterior: Brick and stone walls—2 coats cement paint. Clapboards and sash—3 coats lead and oil. Roof—brush stain coat. All paint products by Sherwin-Williams Co.

ELECTRICAL INSTALLATION
Wiring system—triangle flexible metal conduit. Switches—tumbler type.

KITCHEN EQUIPMENT
Range—gas, Magic Chef, American Stove Co. Refrigerator—General Electric Co. Sink—Standard Sanitary Mfg. Co.

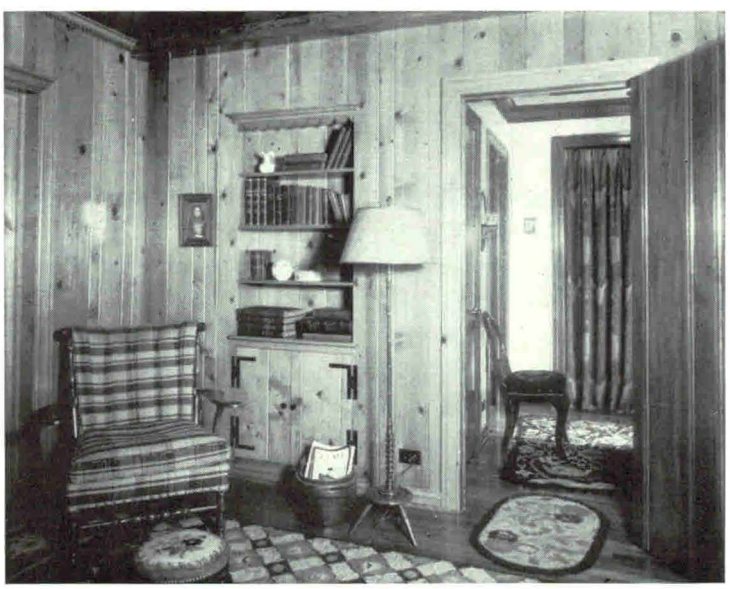
BATHROOM EQUIPMENT
Lavatory, tub and toilet—Standard Sanitary Mfg. Co. Seat—C. F. Church Mfg. Co. Shower—Speakman Co. Medicine cabinet—Corcoran, The Fries & Son Steel & Engineering Co., Inc. Wall heater—gas, Quad Stove Co.

PLUMBING
Pipes: Soil—cast iron. Water—copper, Mueller Co.

HEATING
Gas floor furnaces—Ward Furnace Co. Hot water heater—Everhot Heater Co.

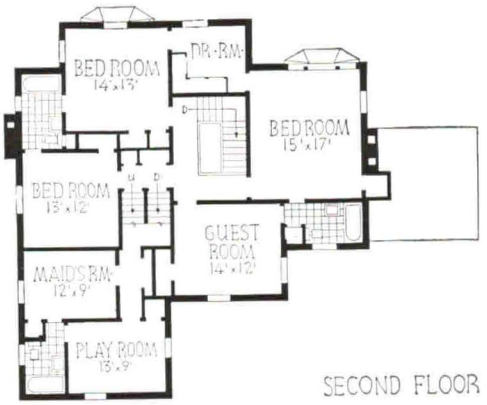
LIVING ROOM

LIBRARY



HOUSE FOR DAVID S. LOUDON, SUMMIT, N. J.

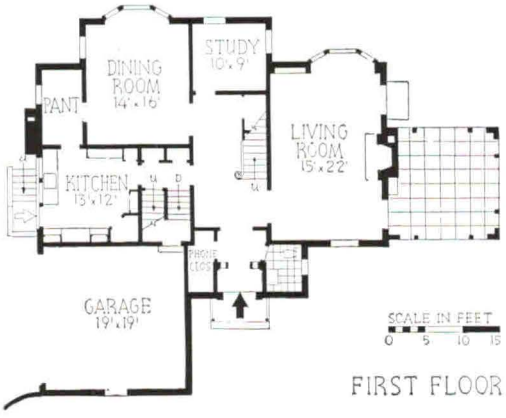
Jane M. Ream



SECOND FLOOR

DAVID LUDLOW, ARCHITECT

BASEMENT



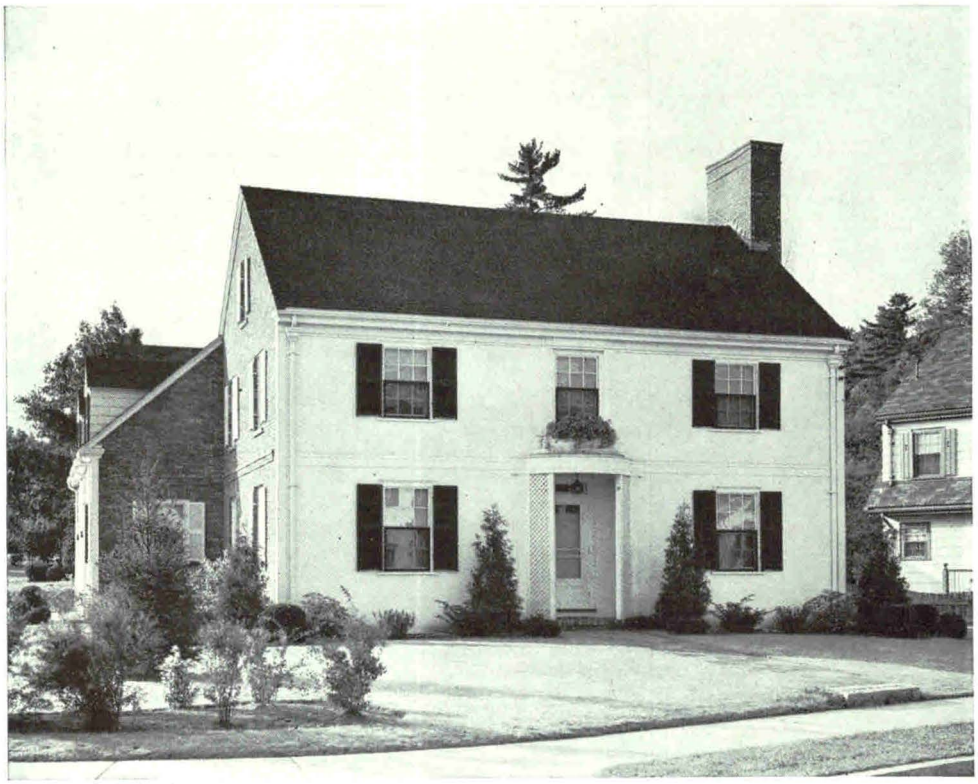
FIRST FLOOR

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—second-hand common brick veneer, 15 lb. building felt, diagonal fir sheathing, and U.S. Gypsum Co. rock lath and pre-sanded plaster.
ROOF: Pennsylvania Bangor blue black slate.
CHIMNEY: Dampers—H. W. Covert Co.
SHEET METAL WORK: Flashing and leaders—copper.
INSULATION: Outside walls and attic floor—4 in. rock wool and F. C. Schundler Co.'s Zonolite. Weatherstripping—Chamberlin Metal Weatherstrip Co.
WINDOWS: Sash—wood, double hung. Glass—single strength, quality A, Libbey-Owens-Ford Glass Co.
FLOORS: Living room, bedrooms and halls—red oak. Kitchen and pantry—linoleum, Armstrong Cork Products Co. Bathrooms—tile, Franklin Tile Co.
HARDWARE: Solid brass, Yale & Towne Mfg. Co. Garage doors—Frantz Mfg. Co.
PAINTING: Interior: Walls—wallpaper, W. H. S. Lloyd Inc. and Richard E. Thibaut. Ceilings—washable cold water paint. Floors—2 coats Minwax, Minwax Co.
ELECTRICAL INSTALLATION: Switches—Hart & Hegeman. Fixtures—Lightolier Co.
KITCHEN EQUIPMENT: Range—Estate Stove Co. Refrigerator—Electrolux, Servel, Inc.
PLUMBING: All fixtures by Standard Sanitary Mfg. Co. Pipes: Soil—cast iron. Water—brass.
HEATING AND AIR CONDITIONING: Filtering, humidifying, circulation for summer cooling, Dailaire, Dail Steel Products Co. Boiler—Petro oil fired, Petroleum Heat & Power Co. Thermostat—Detroit Lubricator Co.

The traditional simplicity of the Georgian house is based on an essentially simple plan. Where room requirements become complex, as in this example, it becomes difficult to avoid an expression of this complexity on the exterior. The second floor, for example, contains five bedrooms, a playroom, dressing room, two stairs, and three baths, and it is only due to the dropping of the floor levels in the north wing that the mass of the house is not too bulky. The wing creates a distinct separation between the main and service entrances; the garage, however, is so placed that direct access to the front hall is provided. Plans for future expansion include a large library, bedroom and bath on the rear, to be placed between the living and dining room bay windows.

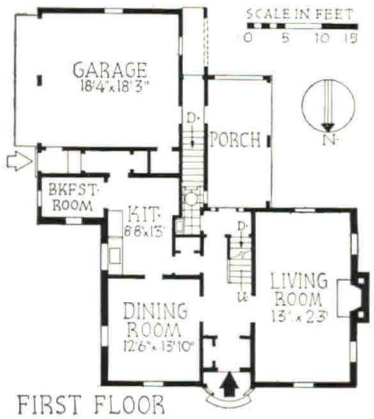
HOUSE FOR MR. & MRS. LEROY A. WATCHORN, MELROSE, MASS.



SECOND FLOOR

DAVID J. ABRAHAMS, ARCHITECT

BASEMENT



FIRST FLOOR

The appearance of the typical Colonial house can be varied by changes in detail, as shown by this example, which combines traditional mass with simplified trim, a device particularly noticeable in the design of the entrance porch. Orientation requirements determined the placing of the breakfast room, kitchen, and dining room on the east side, and the master bedroom was located to take advantage of the view over a nearby park. As the house occupies a corner lot the porch was placed to gain as much privacy as is possible on a small plot: it is sheltered from both streets and from the service yard. Access to the large game room is conveniently placed under the main stair, and separate stairs to the drying yard lead up from the basement laundry. Cubage: 40,000. Cost: $13,000, at 32.5 cents a cubic foot.

CONSTRUCTION OUTLINE

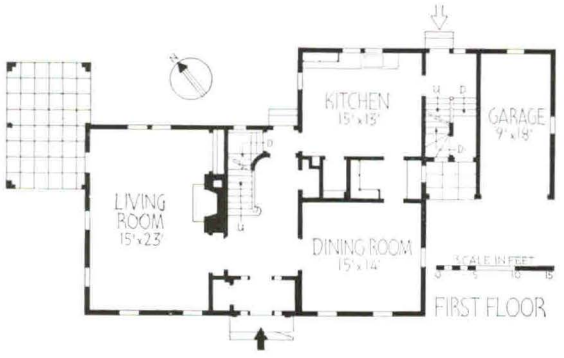
STRUCTURE: Exterior walls—braced frame construction, Douglas fir with spruce boarding. Front of house flush pine boarding with joints white leaded, back of boarding primed. Second hand brick veneer on ends, 18 in. red cedar shingles elsewhere. Interior partitions—gypsum plaster on rock lath, U.S. Gypsum Co. Floors—fir joists, spruce sub-floor. Ceilings—3 coats gypsum plaster on metal lath.
ROOF: Covered with asphalt shingles.
SHEET METAL WORK: Flashing—16 oz. copper. Gutters—fir. Leaders—Toncan metal, Republic Steel Corp.
WINDOWS: Sash — double hung, Andersen Frame Corp., casements in kitchen. Glass—single thickness, quality B. Screens—copper bronze on stock wood frames.
FLOORS: Living room, bedrooms and halls—oak. Kitchen—linoleum. Bathrooms—tile.
WALL COVERINGS: Living room, bedrooms and halls—wallpaper.
HARDWARE: Interior—Bakelite and brass. Exterior—brass and iron.
KITCHEN EQUIPMENT: Range—gas, Magic Chef, American Stove Co. Refrigerator—General Electric Co.
PLUMBING: All fixtures by Kohler Co. Pipes: Soil—heavy cast iron. Water—brass.
HEATING AND AIR CONDITIONING: Split air conditioning system, American Radiator Co. Hot water heater—40 gallon Whitehead automatic storage heater, The International Nickel Co., Inc.

HOUSE FOR CLARENCE P. HOUSTON, SOMERVILLE, MASS.

Ghercin Photos

LIVING ROOM

ANDREWS, JONES, BISCOE AND WHITMORE, ARCHITECTS



CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—2 x 4 in. studs, matched N. C. pine boarding, red cedar shingles, painted white. Inside—wood lath and plaster.
ROOF: Covered with Custom-Built asphalt shingles, Bird & Son, Inc.
CHIMNEY: Terra cotta flue lining. Throat and damper—H. W. Covert Co.
SHEET METAL WORK: Flashing and leaders—copper. Gutter—cypress.
INSULATION: Outside walls and attic floor—rock wool, Johns-Manville, Inc. Weatherstripping—Reese interlocking, Reese Metal Weatherstrip Co.
WINDOWS: Sash—wood, double hung. Glass—quality A, double strength, flat drawn sheet, Libbey-Owens-Ford Glass Co. Screens—wood frame, sliding, Watson Mfg. Co.
FLOORS: Main rooms—red oak. Kitchen—linoleum over 5/8 in. fir plywood. Bathrooms—tile.
WALL COVERINGS: Main rooms—wallpaper. Kitchen—paint. Bathrooms—tile dado, paint above.
WOODWORK: Trim — detailed California white pine. Interior doors—1 3/8 in. 6-panel Colonial birch, A. W. Hastings & Co.

A conventional house, both in plan and exterior, this residence was designed for a college professor and his wife. The basement has been utilized as a study for the owner, and as a room where students may come for conferences about their work. The house is situated on a lot approximately 100 feet square; the lot pitches steeply from front to rear, and in order to properly terrace it the house was set far back on the lot, its rear being only 15 ft. from the lot line.

HARDWARE: Interior and exterior—Yale & Towne Mfg. Co.
PAINTING: Interior: Walls—lead and oil, Ripolin enamel, The Glidden Co. Ceilings—Muresco, Benjamin Moore Paint Co. Floors—oil stain, filler, 2 coats wax. Exterior—shingles, Old Virginia White stain, Samuel Cabot, Inc.
ELECTRICAL INSTALLATION: Wiring system—BX cable. Switches—tumbler, Hart & Hegeman. Fixtures—direct, Pettingell-Andrews Co.
KITCHEN EQUIPMENT: Range—gas. Refrigerator—General Electric Co. Sink—enamel iron, Standard Sanitary Mfg. Co. Dishwasher—electric, Kohler Co.
BATHROOM EQUIPMENT: All fixtures by Standard Sanitary Mfg. Co. Seat—C. F. Church Mfg. Co. Cabinet—steel, Conant Brothers.
PLUMBING: Pipes: Soil—cast iron. Water—Alpha brass, Chase Brass & Copper Co.
HEATING AND AIR CONDITIONING: Filtered and humidified, Carrier Corp. Thermostat—Minneapolis-Honeywell Regulator Co. Hot water heater—gas automatic, 80 gallon copper storage tank.

PLANNING TECHNIQUES

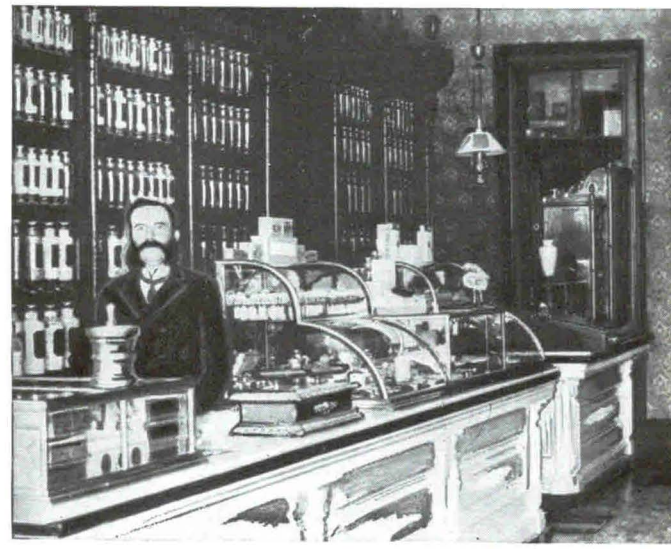
FOR NEW AND REMODELED BUILDINGS

NO. 5. DRUG STORES

Courtesy, Caswell-Massey Co., Lt

There are 56,697* retail drug stores in the United States which do a total annual business of some $1,232,600,000—or about $22,000 per store per year. Drug stores constitute about 4 per cent of all retail establishments and do about 4 per cent of the total retail business. This seemingly equitable arrangement is, however, complicated by one exceedingly important fact, a fact of particular importance in any consideration of drug store layout. Bane of the druggist's existence is, and has been for longer than most druggists can remember, the small size of his typical sale—estimated to average about 30 cents per customer. This means that drug store overhead-per-sale is high, profit on gross revenue consequently low.

Ever since the introduction about 75 years ago of the first soda fountain whose successor is shown in the upper picture on the right, the history of drug store layout and design has therefore been the history of sundry changes keyed to one basic objective: that of creating multiple sales, in an attempt to swell sales-per-customer, reduce overhead-per-sale. Such attempts have met with varying degrees of success. Efforts to build the so-called "impulse sale," extremely fashionable a few years ago, are today regarded with some skepticism. But what is nowhere denied is that the average druggist is still very much dependent upon the multitudinous stepchildren which have grown up around his original prescription and drug departments.



Courtesy, Drug Topi

Recent studies of relative sales volume for various departments of the typical drug store bear this out. Estimates of the part played by prescription business range from but 8 to 16 per cent, while soda fountain, confectionery and other specialty items may account for as much as 50 per cent of total sales volume. Averages, however—especially averages for a field as broad as that included in the term "drug store"—are notoriously deceptive. Actually, the trend in drug store design is toward two more or less distinct types. The first of these is the familiar, large, prominently located store which sells everything from capsules to bathing caps, with breakfast and lunch thrown in. The second type, of relatively more recent origin, is the small, strictly "ethical" pharmacy, concentrating on prescriptions and actual sick room supplies. Each of these types is the answer to a particular problem: the large, general type of store to the problems of high rents and transient trade characteristic of congested areas and the small, specialized shop to the problems of low volume and high overhead which beset the suburban, or neighborhood druggist. Both types are illustrated and analyzed on the following pages.

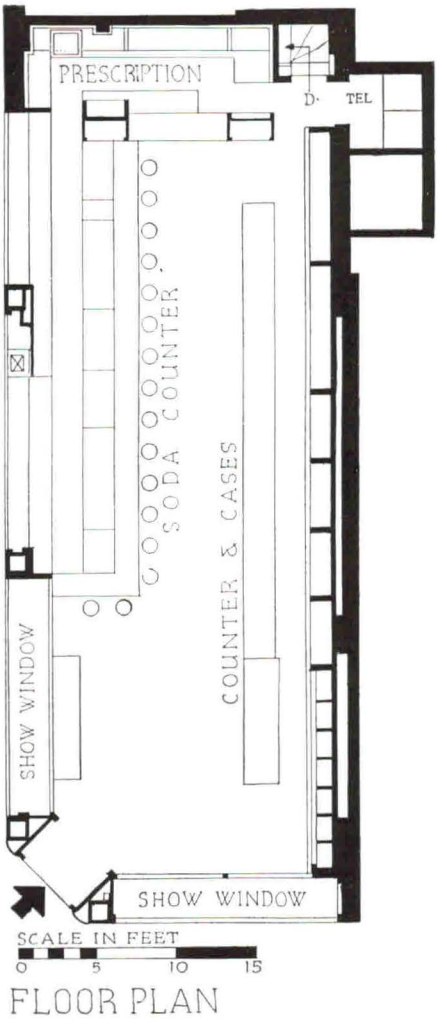
Courtesy, Drug Topi

*Figures are for 1935, the latest available.

Previously published in this series: NO. 1. SERVICE STATIONS, February 1937; NO. 2. SHOE STORES, March 1937; NO. 3. CAFETERIAS AND LUNCHEONETTES, May 1937; NO. 4. WHOLESALE SHOWROOMS, June 1937. Readers wishing detailed information on Drug Stores and other subjects previously published are invited to address inquiries to The Forum's Editorial Research Department.

DRUG STORES

John Beinert



FLOOR PLAN

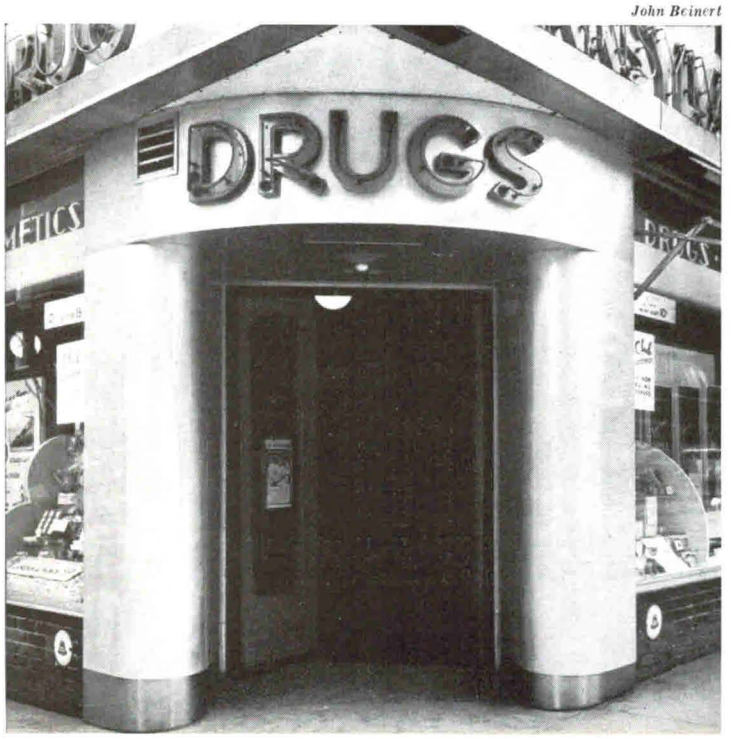
PENNSYLVANIA DRUG CO. STORE AT 52ND STREET & LEXINGTON AVENUE, NEW YORK CITY

FORDYCE & HAMBY, ARCHITECTS

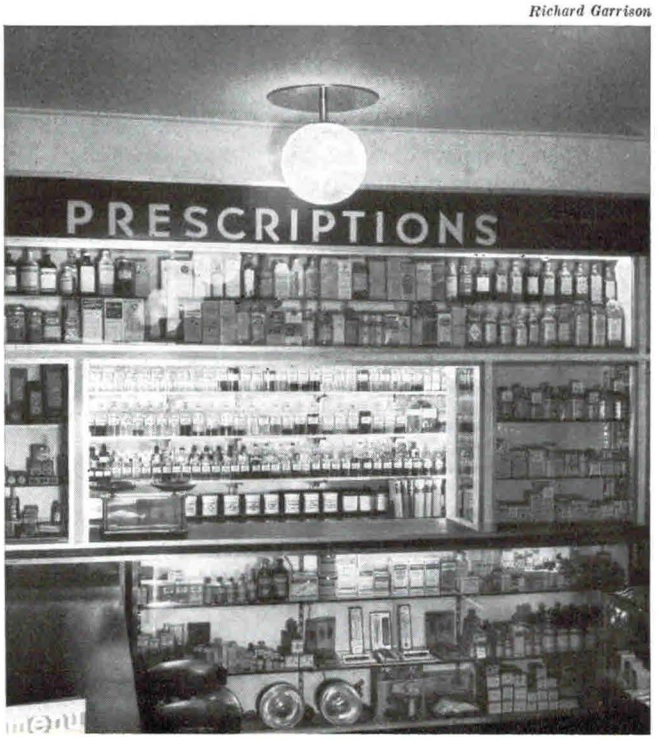
FINISHES AND EQUIPMENT

Floors: Terrazzo, Belgian black marble chips, with 10 per cent sprinkle of Carrara marble, black cement, No. 18 gauge white metal dividers. Walls and ceiling: plaster, painted. Store front: ⅛ in. bent aluminum, enamel sheets and glass. Sign: Neon, single tube double intensity, anodic aluminum reflector.

John Beinert

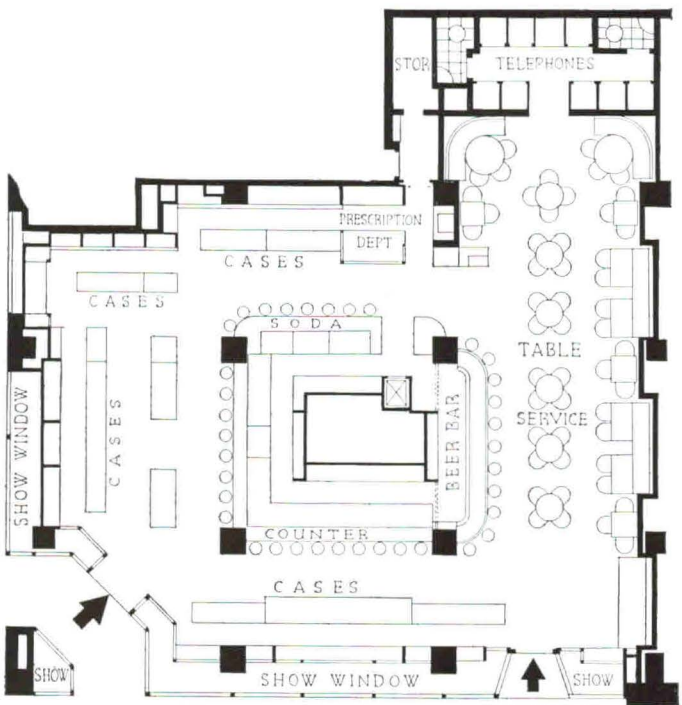


Richard Garrison

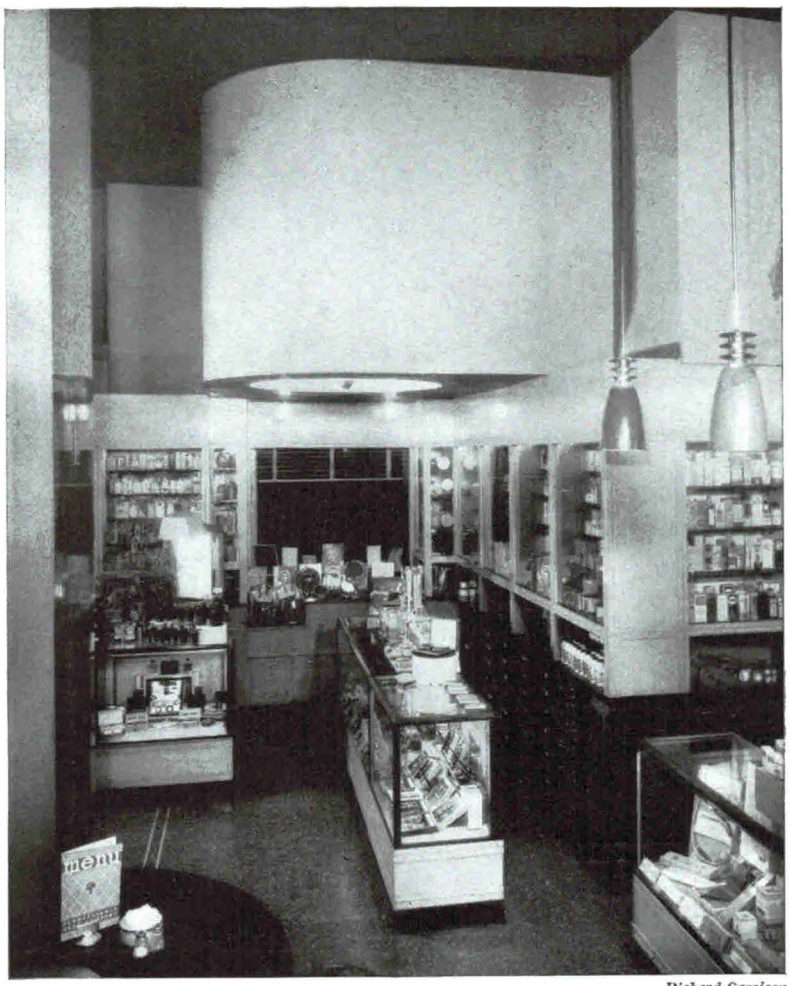


PLANNING TECHNIQUES NO. 5

PENNSYLVANIA DRUG CO.
STORE AT 51ST STREET & 6TH AVE.,
NEW YORK CITY
FORDYCE & HAMBY, ARCHITECTS



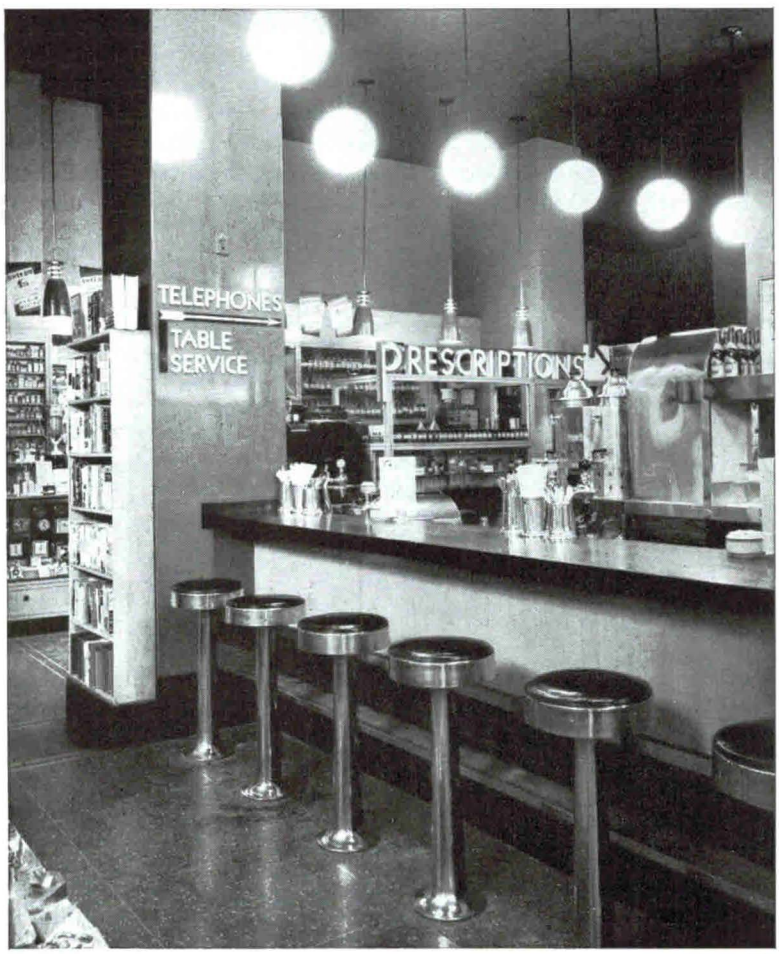
FLOOR PLAN



DISPLAY DETAIL

Richard Garrison

FOUNTAIN



John Beinert

FINISHES AND EQUIPMENT

Floors: terrazzo. Walls and ceiling: plaster, painted; column facing, Formica. Fixtures: wood with Formica base. Furniture: Thonet Bros. Store front: bronze, bronze doors. Sign: Neon, double intensity; wall sign bronze letters with white enamel face.

Large stores of the type shown on this and the preceding page depend on the large volume luncheonette business to attract customers to other departments. Sheer size makes possible an attractive departmentalization of the selling area not always feasible in the smaller store, a departmentalization which has here been competently carried out. In both examples, and particularly in the store on this page, a treatment of the signs and furnishings somewhat more restrained than that typical of this kind of store does much to counteract the effect of a rather crowded layout, without in any way detracting from the customer appeal of the display.

DRUG STORES

Russell B. Harding Photos

KENMORE PHARMACY, BOSTON, MASS. ISIDOR RICHMOND, ARCHITECT

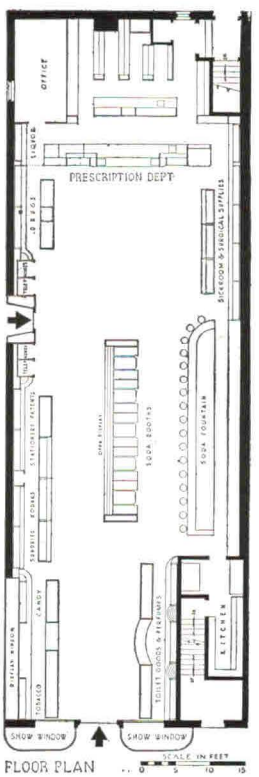
Representative of the best modern practice in the layout and design of the large pharmacy, this example is prime evidence of the fact that drug store planning techniques are coming of age. Open, orderly and direct, the plan provides proper separation, and—at the same time—appropriate articulation of the various departments. A rather novel feature is the large display island in the center of the store, where display cases, both open and enclosed, are used to screen a series of booths in connection with the soda fountain. Lighting is especially well carried out: special fixtures incorporated in all display cases focus attention on the stock, and unobtrusive units recessed in the ceiling provide general illumination. Note also the relatively small amount of space allotted to window display, a characteristic of drug store planning.

FINISHES AND EQUIPMENT

Floor: terrazzo, contrasting colors; floor in service portion linoleum. Walls and ceiling: plaster, painted. Fixtures: flush wood veneer, Grand Rapids Store Equipment Co. Lighting: indirect, Ericson reflectors. Store front: Alberene base, Alumilite trim. Sign: Neon.

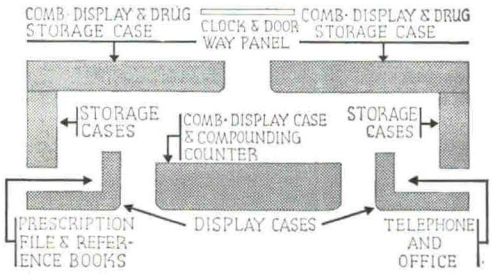
DISPLAY COUNTER

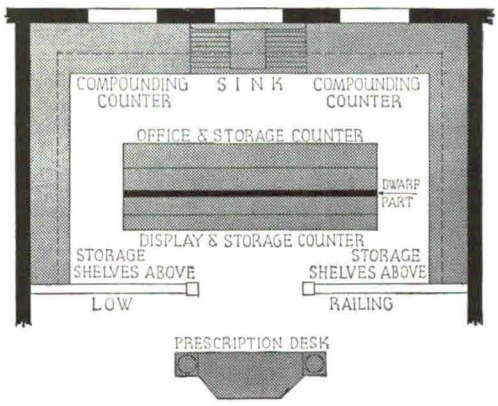
FOUNTAIN



FLOOR PLAN

PLANNING TECHNIQUES NO. 5.





Focal point of the small modern pharmacy is the prescription department, which usually occupies the entire back end of the store. Primarily a prestige-making device, the impressive open type "laboratory" has utility-value as well, since it makes it possible for the pharmacist to keep an eye on the store while at work. Usually arranged so as to screen the actual working counter, most designs leave the head and shoulders of the pharmacist, and as much of the drug storage space as possible, exposed to the store. The upper of the two drawings above is a plan of the prescription department shown immediately at the right, a design employing stock elements and carried out in porcelain enamel. The lower drawing is a schematic diagram of the ideal prescription department, based on that in the Evergreen Pharmacy shown on the following page, an unusually successful job. Middle picture at the right shows another type of design now in vogue, particularly in the middle-size and larger store, in which the division between the sales area and compounding room is somewhat more definite. Below is a simple and effective arrangement for the open type prescription department, especially suitable for small, narrow stores.

Courtesy, Drug Topics

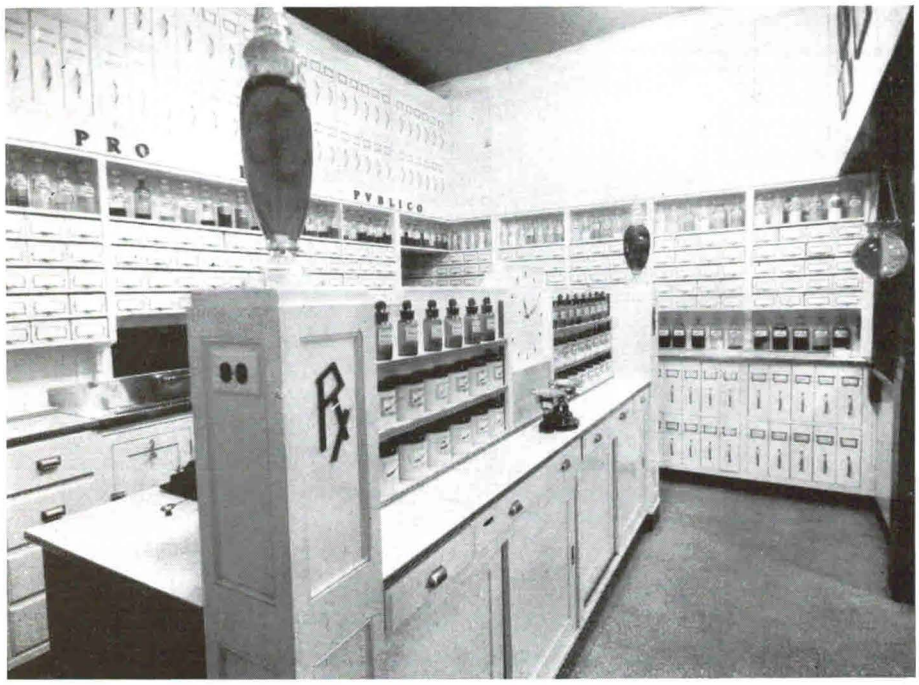
THE FISCHER PHARMACY, ANN ARBOR, MICH.
H. M. SCHLEGEL, DESIGNER

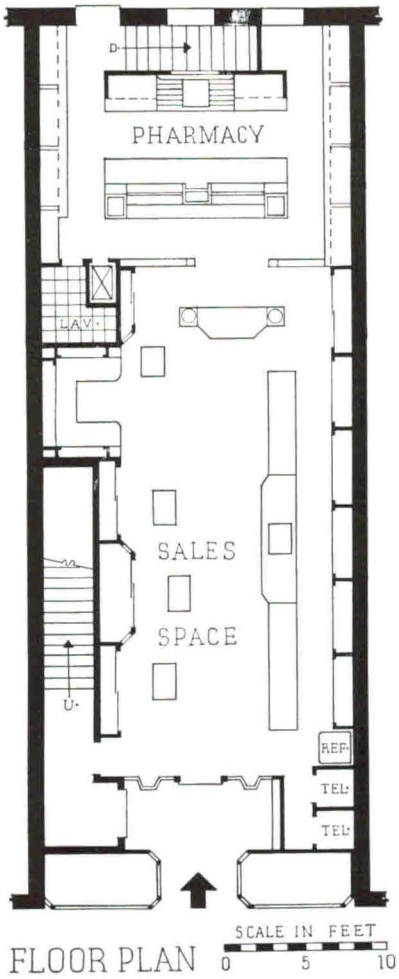
Clarence B. Farrer

MINER & CARTER, ATLANTA, GA.
ARTHUR FALKENBERG, DESIGNER; KRUGER MFG. CO.

Courtesy, Drug Topics

ARROW DRUG CO., ALBUQUERQUE, N. M.





FLOOR PLAN

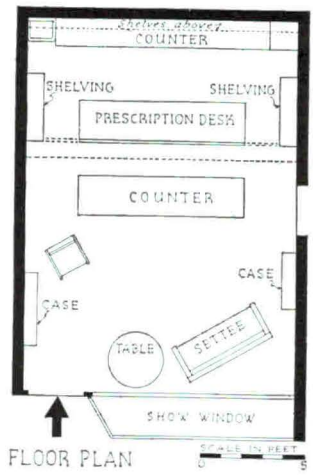
EVERGREEN PHARMACY, BROOKLYN, N. Y.

HENRY H. VOIGT, OWNER AND DESIGNER

Just as the Kenmore Pharmacy shown on a preceding page may be considered a model for large-store design, the plan shown above may profitably be studied in connection with the middle-sized store. Typical of the group of stores midway between the large downtown drug store and the new-style "ethical" neighborhood pharmacy, the design in this case has dispensed with the soda fountain but still has considerable sales area devoted to drugs and specialties. Note particularly the attractive recessed booth provided for customers awaiting prescriptions, use of high-key finishes and lighting to draw attention to the prescription department at the rear of the store.

FINISHES AND EQUIPMENT

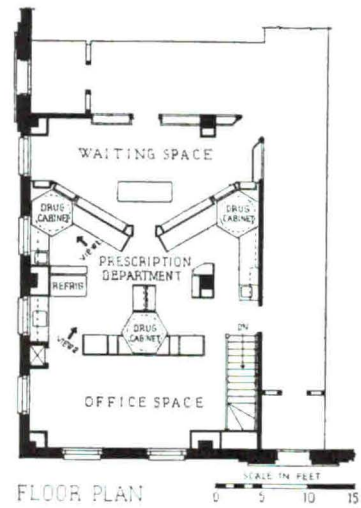
Floor: terrazzo, floor in prescription dept. raised 6 in. Walls: American Walnut veneer. Ceiling: Acoustical Nu-Wood, Wood Conversion Co. Fixtures: Star Show Case Co. Lighting: Electrolier. Store front: ivory and green Vitrolite, plate glass (Libbey-Owens-Ford Glass Co.), awning box, York Awning Co. Sign: Neon, porcelain enamel.



FLOOR PLAN

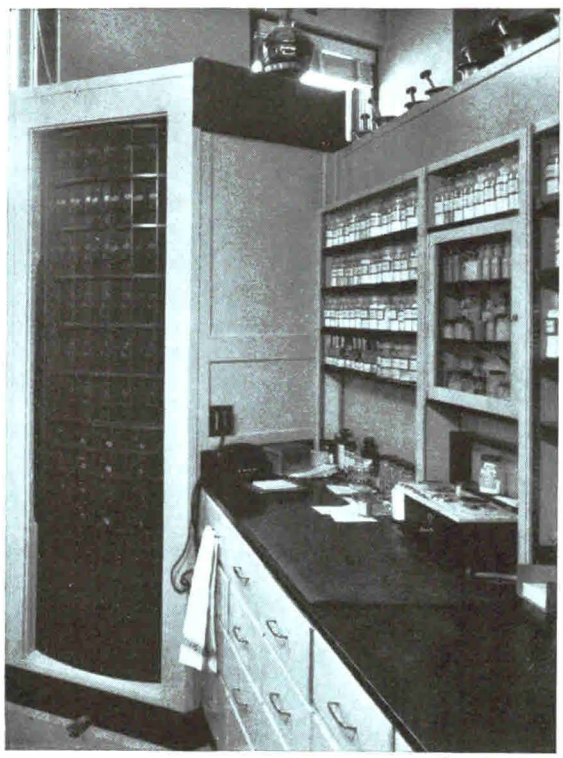
THE APOTHECARY SHOP, PHILADELPHIA, PA.
MAURICE W. WAITE, OWNER AND DESIGNER

Both of the stores shown on this page are of the strictly "ethical" type, dealing only in prescriptions and sick-room supplies. There is currently a marked trend toward this type of store, explained by the fact that many pharmacists find that by cutting out multitudinous departments and concentrating on this type of business overhead is reduced proportionately more than sales. Not the least advantage accruing to the pharmacist making such a change is the considerable increase in prestige involved. In each of these stores, a simple, utilitarian treatment is employed, tending toward the antiseptic, "hospital" effect. Most interesting feature of the Knight Drug Store, shown below, is the hexagonal cases containing revolving drug cabinets, an excellent means of utilizing otherwise "dead" corners in the shelving.



FLOOR PLAN

KNIGHT DRUG STORE, ST. LOUIS, MO. PRESTON J. BRADSHAW, INC., ARCHITECTS



Alexander Piaget

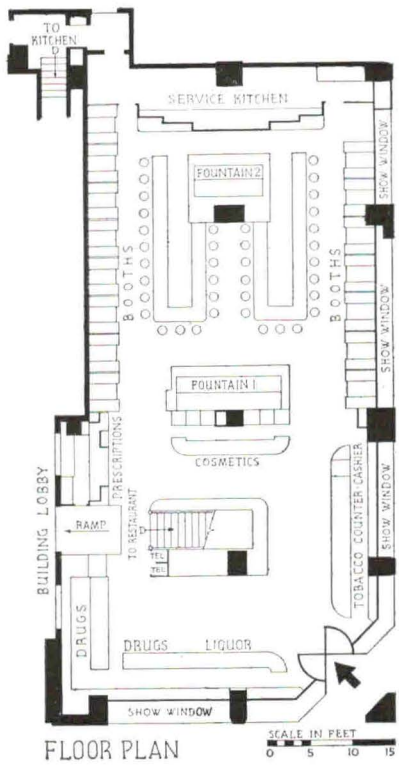
VIEW 1

Alexander Piaget

VIEW 2

DRUG STORES

Hedrich-Blessing Photos



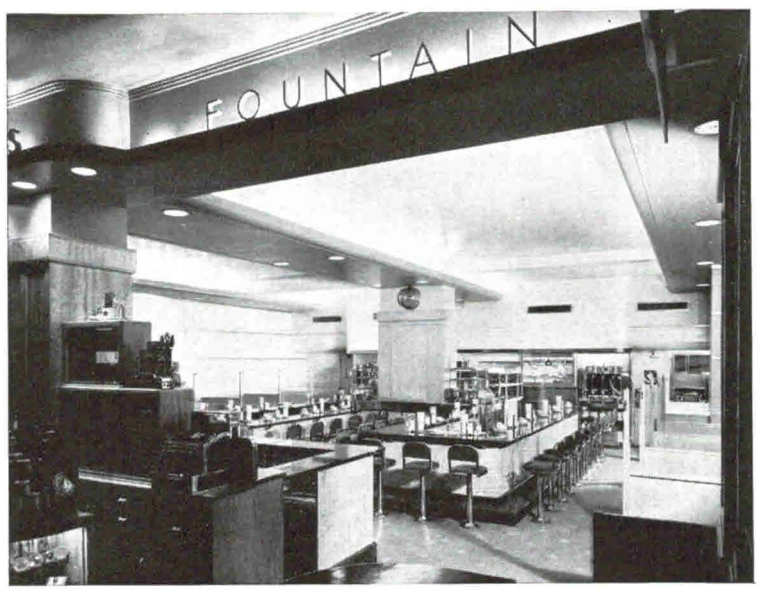
FLOOR PLAN

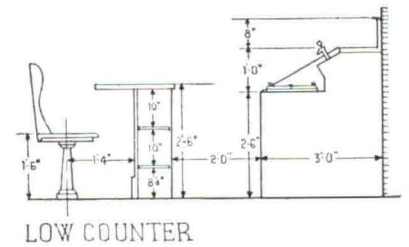
STINEWAY DRUG CO., CHICAGO, ILL.
LEICHENKO & ESSER, INC., ARCHITECTS

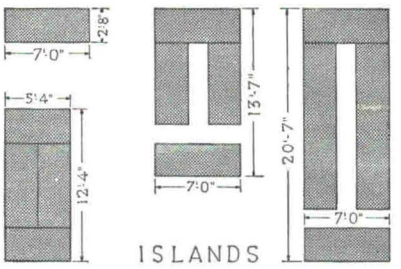
This large store, operated in connection with a basement restaurant, is as much luncheonette as pharmacy. Division of the space into two pronounced sections is accounted for by the fact that the owners wished to be prepared for possible Illinois legislation prohibiting the sale of food in drug stores, in a position readily to divide the store completely. The otherwise excellent treatment of furnishings and fixtures is somewhat marred by the rather massive effect of the central cosmetic counter (above), which incidentally tends also to emphasize the division of the store already referred to.

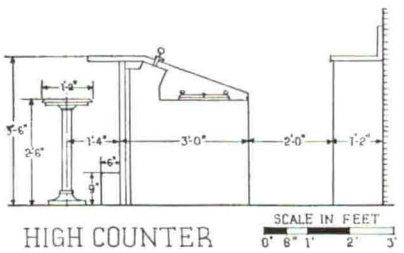
FINISHES AND EQUIPMENT

Floor: sales area, rubber tile, vermilion and light gray; service portion, Bruce maple blocks, 9 x 9 in., E. L. Bruce Co., set in mastic. Walls and ceiling: plaster, painted; stainless steel snap-on moldings. Fixtures: drug dept., Aspen; luncheonette, pin grained oak. Fountain: Breche Violet marble with Verde Antique counter, fittings stainless steel. Air conditioning: duct system, Trane cooling with Frick compressors and American Radiator Co. filters; heating, steam coils in same system. Sign: Neon.

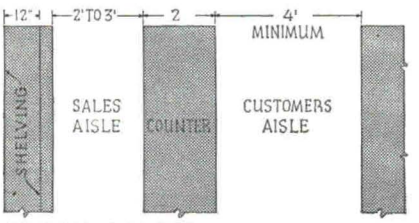


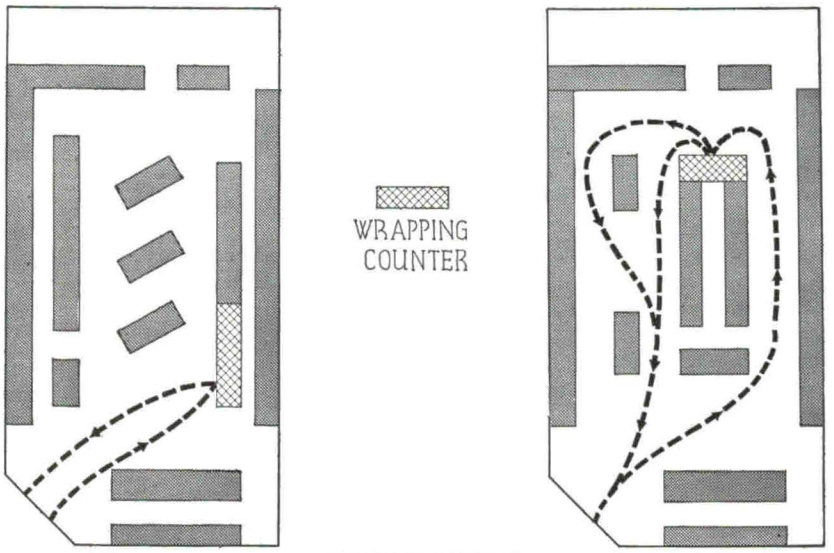




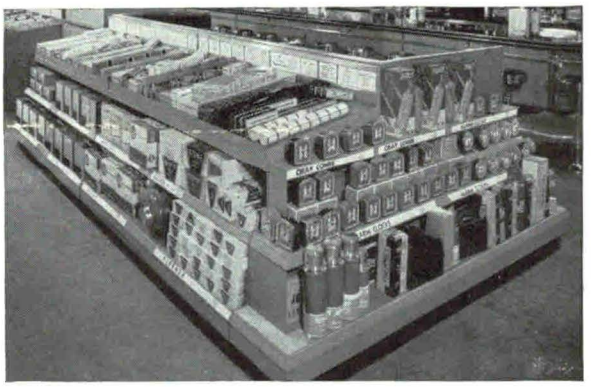


SODA FOUNTAINS

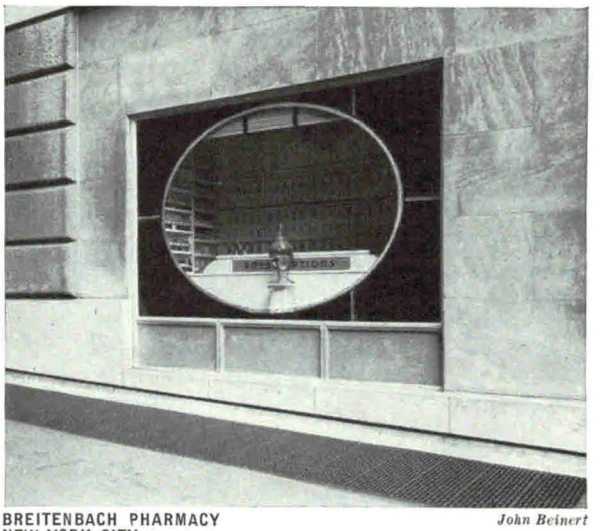




Courtesy, Drug Topics

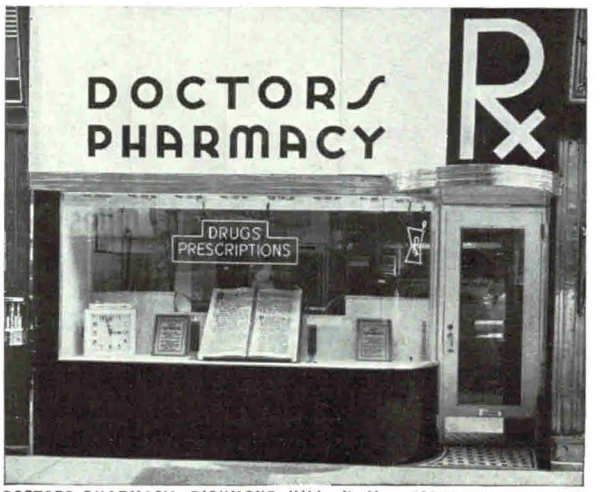


ACME DRUG CO., CHICAGO *Courtesy, Drug Topics*



BREITENBACH PHARMACY
NEW YORK CITY *John Beinert*

Controlling factor in the layout of drug store sales and display space is the desire to create multiple sales. Prerequisite for this type of selling is that the customer see as much of the stock as possible, attractively displayed and clearly priced. This has led to a new type of display counter, in which the goods are out in the open where they can readily be examined and handled by the customer. Most efficient arrangement for this kind of display has proved to be the "island" type, which in some stores has replaced the sidewall counter entirely. Islands are kept low, so as not to obstruct a full view of the store, and customer aisles made as generous and invitingly wide as possible. To stimulate customer circulation past display counters, wrapping tables and the cash register are located in the rear of the selling area. Various counter arrangements, and a comparison of old- and new-type layouts, are shown above. Upper pictures at the right show modern display cases, lower pictures typical show windows with prestige-making displays. In the Breitenbach Pharmacy, the entire prescription department is visible through the show window. Note shallow depth of show windows, and below-eye-level backgrounds, typical of new drug store work.



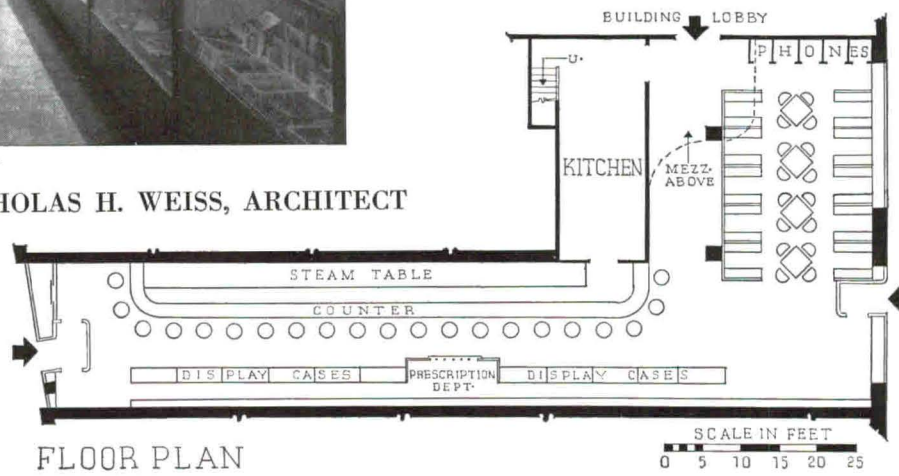
DOCTORS PHARMACY, RICHMOND HILL, N. Y. *Old Masters Assoc., Inc.*
OWNED AND DESIGNED BY IRVING NADELHAFT

John Beinert Photos

MANDELL'S DRUG STORE, NEW YORK CITY
NICHOLAS H. WEISS, ARCHITECT

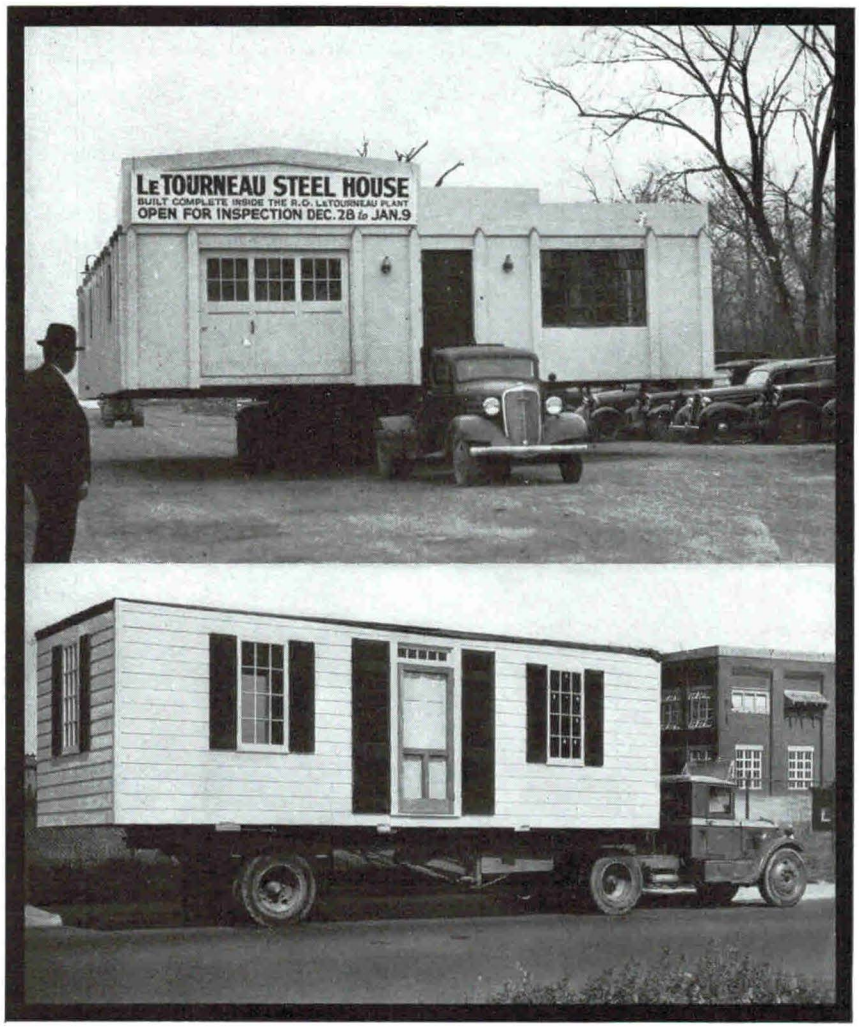
FINISHES AND EQUIPMENT

Floor: Store, Tile-Tex (Tile-Tex Co.); Kitchen, tile (Mosaic Tile Co.). Walls and ceiling: plaster, painted (Devoe & Raynolds Co., Inc.). Fixtures: Walnut, Formica tops. Fountain: Russ Soda Fountain Co. Lighting: direct and indirect, Shaw Electric Co. Store front: black Carrara glass (Pittsburgh Plate Glass Co.) and Insulux glass blocks (Owens-Illinois Glass Co.); window frame, bronze, Kawneer Co. Sign: Bronze, Brady Sign Co.



FLOOR PLAN

The arrangement of this store takes advantage of a long, narrow wing of the irregular store space for location of the necessarily attenuated luncheonette counter. Drug display and prescription department are opposite, leaving the large end of the store free for booths and tables. Three separate entrances draw trade from opposite streets and from the lobby of the building in which the store is located, and a kitchen is provided to take care of the obviously considerable luncheon trade. Decorations on the whole are simple and reserved, and an open, spacious effect achieved. The mezzanine balcony shown in the picture at the right is used for storage only. Again notable is the small amount of space devoted to window display.



F. O. B. Above, Le Tourneau Steel House; below, Copper Mobile House, in transit.

THE MOBILE HOUSE

In Peoria and in Baltimore have recently appeared two independent versions of the *mobile house*, a construction form based on a radically new method of house assembly. Long known to students of prefabrication as the "truckable unit," the mobile house is distinguished from all other types of construction by the fact that it is built as a unit which can be moved conveniently from place to place and may therefore be completed in its entirety in the shop.

Such a method of assembly should make possible savings in construction costs. All work may be done under cover and independent of weather conditions, thus assuring continuous—and therefore more economical—use of labor at repetitive tasks. The opportunity to employ fixed, heavy machinery saves labor costs and permits the use of superior materials which cannot be worked with hand tools. The number of trips to the job for both materials and men is materially reduced.

On the merchandising side, the manufacturer of the mobile house can offer the home buyer a complete and finished article, one which he may locate on a plot of his own choice. Again, the owner of the mobile house is not tied down to a particular site, can move at will from a deteriorating neighborhood to protect his investment. Finally, it seems ultimately possible that this very mobility will make the mobile house eligible for a chattel mortgage, a more favorable type of financing than the conventional real estate mortgage.

Just as prefabrication was headline news of the building market of five years ago, the mobile house may well become the most publicized building story of 1937. Whether it will be as slow to materialize as prefabrication has been, only the future can show. Meanwhile, something of a yardstick is provided by the mobile house progenitors, the dining car and the trailer.

1. 2 ROOMS

2. 4 ROOMS

3. 5 ROOMS

4. 6 ROOMS

5. 4 ROOMS

VARIOUS COMBINATIONS of three basic units, Copper Mobile Houses. Air conditioning duct is located in shaded area.

PROGENITORS

Grandfather of the mobile house was the so-called "diner," or portable lunch wagon, and other portable (rather than sectional) structures. As a completely shop fabricated structure, the dining car has not received the attention it deserved from prefabricators; it provides a valuable reservoir of practical field experience, much of which tends to substantiate the claims which the mobile house is making for itself. One of the greatest advantages of the dining car, for example, has always been its ability to move as conditions change from a poor location to a better. Another has been the fact that it has always been possible to sell the highly equipped diner on terms considerably more favorable than those applying to the equipment itself, owing to the ease of recapture. Other significant and perhaps less favorable diner data applicable to the mobile house: number, 4,000; annual production, 150-160; cost, $10,000 to $15,000; size, 10 ft. 6 in. to 15 ft. wide by 22 ft. to 60 ft. long; haulage costs, sometimes as high as $1,000.

Next in the ancestral line of the mobile house is the automobile trailer about which there is so much misinformation current that it is difficult to sift fact from fancy. For our purpose, however, it is sufficient to note three fairly well established facts. The first of these, the undoubted popularity of the trailer, is certainly a good augur for the mobile house. Secondly, there is its wholly unexpected (at least by the trailer makers) use in isolated instances as a fixed, year 'round home, and thirdly the trailer manufacturer has demonstrated that he can produce somewhat acceptable living accommodations at low unit cost. The line between the trailer and the mobile house is not sharply drawn. Both aim to provide dwelling facilities for a single family in a readily transportable form. The chief distinction of the trailer—that it is intended primarily for travel—is even tending to disappear because of the tendency, in some cases, toward its use as a permanent home. At one of the State colleges in the Middle West there is even a trailer with a fully excavated basement. It may be said, however, that at the expense of mobility the mobile house aims to provide more adequate living accommodations and particularly more adequate space than does the trailer.

Some units are designed to observe highway regulations as to maximum width (in most States 11 ft.), while others are shaped like ordinary houses and require special permits for shipment. Some are designed for shipment of only a few miles, others may be economically transported much further. Neatest trick of mobile house design so far, and the one which seems to offer most for the future of mobile housing, is the construction of the house in two or more units narrow enough for shipping, but capable of being fitted together on the site to form a house of normal dimensions.

COPPER MOBILE HOUSES

The last method is the one employed in the design of the Copper Mobile House. Here a basic unit, 11 x 28½ ft., contains all of the mechanical equipment for a complete dwelling unit, and may be expanded by the addition of other units of varying size from a two-room into a four-, five-, or six-room house. Besides having the advantage of making the house easier to transport, this arrangement makes for maximum flexibility, three or four elements being capable of combination into many more house types.

The fundamental Copper Mobile House plan is a four-room, two-unit bungalow, expansible by the addition of a one- or

two-bedroom unit added at the end. Kitchen and bath are located in one corner, together with an air conditioning unit operating through a duct in the hallway ceiling which serves all of the rooms without requiring extension of the ductwork into the other units. The rather narrow width of the living and dining rooms occasioned by the design limitation of an 11-foot overall unit width is somewhat relieved by a large opening between the two rooms.

The walls are constructed with a light weight, welded, steel channel frame, to which steel windows are directly attached. Exterior and interior skins are plywood, the exterior skin being copper covered and painted. (In the one unit so far constructed, outside finish has been made to resemble clapboards.) Plywood sheets are 4 x 8 ft., placed vertically on the outside and horizontally on the inside; the exterior plywood being attached to the framework by screws from behind and the interior finish secured with self-threading nails. An interesting feature of the construction is the use of square copper rain water leaders to fill in the corners.

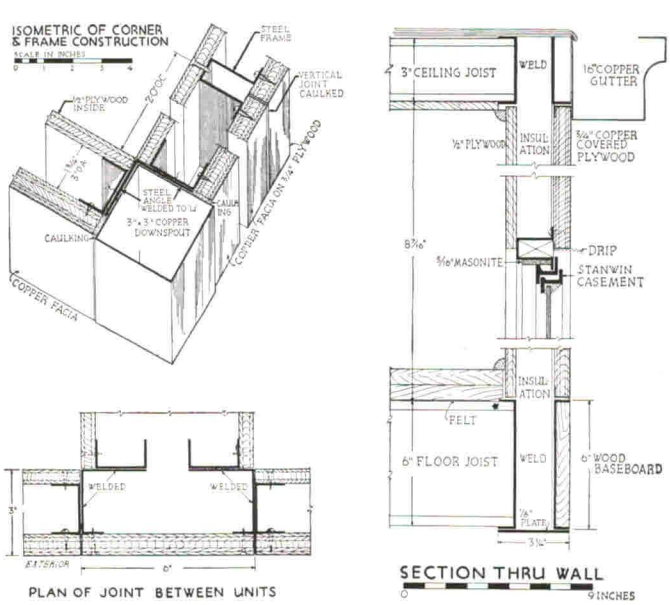
Floors and roof are framed with light-weight I-beams, walls and roof filled with granular vermiculite insulation. All exterior joints are filled with mastic calking compound.

The houses are set in place on a foundation of precast concrete piers extending below the frost line. Space sufficient to permit easy structural connection is allowed between units, and junction boxes are provided for rapid connection of electric wires, etc. An opening provides access to a space beneath the kitchen sink where all soil and water connections are made. According to the manufacturer, the houses may be installed on the site in a few hours, moved if necessary to a new location for about $100.

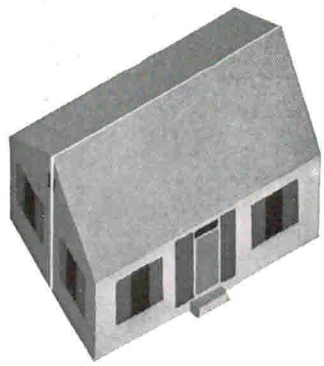
Tentative price schedules for the Copper Mobile units call for slightly less than $2,000 for the basic unit containing the mechanical equipment, somewhat more than $1,000 for non-mechanical additions. On this basis a 4-room house would cost about $3,000, one of 5 or 6 rooms about $4,000.

Architect John J. Whelan, of Washington, D. C., who is responsible for the development of the Copper Mobile House, has had considerable practical experience in the field of prefabricated housing. As designer of twenty-four prefabricated sectional houses already erected by Copper Houses, Inc.,* a subsidiary

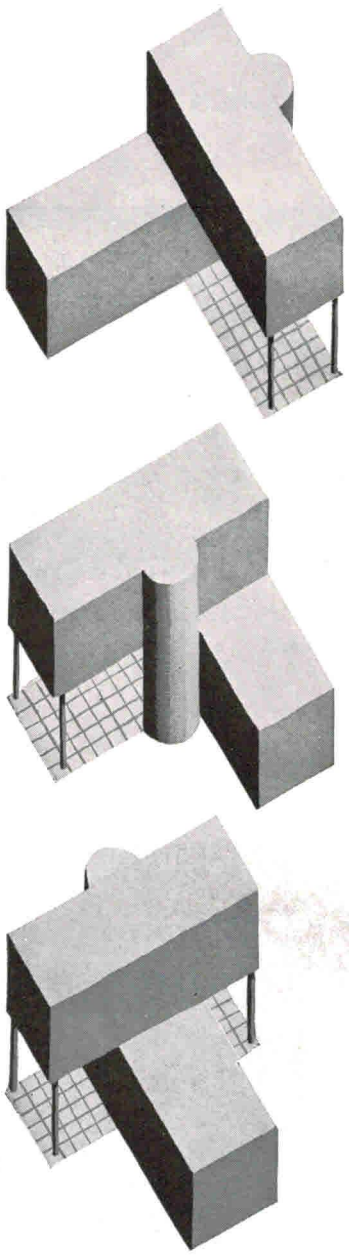
* See ARCH. FORUM, Dec., 1935, p 549.



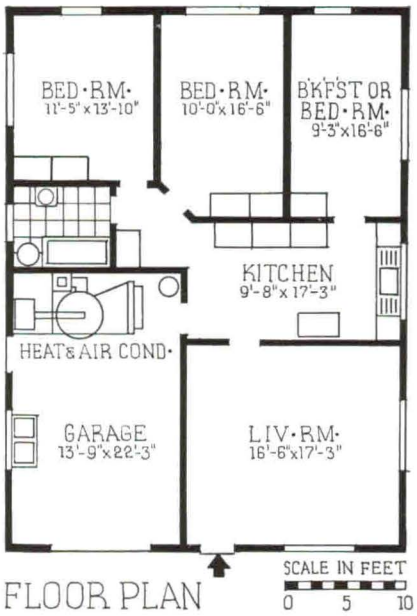
CONSTRUCTION DETAILS, Copper Mobile Houses.



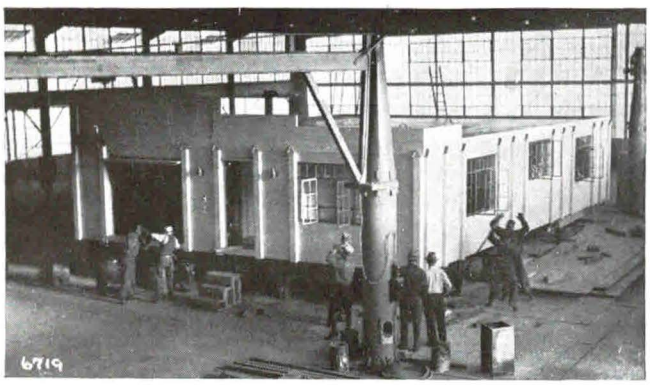
BREAD AND BUTTER DESIGN (Plan No. 2). One architecturally similar house (Plan No. 3) has already been built.



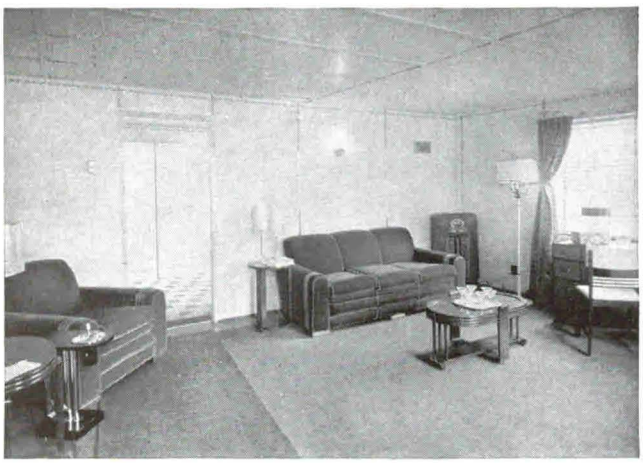
2 STORY COMBINATIONS, indicating the flexibility inherent in the Copper Mobile House units.



LE TOURNEAU STEEL HOUSE



IN THE SHOP: Completed Le Tourneau unit being jacked-up preparatory to delivery to the site.



INTERIOR, living room, Le Tourneau Steel House.

of the Kennecott Copper Corp., and of fourteen more which are shortly to be built, he has had a unique opportunity to see exactly how this type of construction works out in practice. It is on the basis of this experience that he has turned to the construction of mobile, rather than sectional, prefabricated houses. Foremost among the reasons which he gives for this change is the fact that sectional construction applies the savings of shop fabrication to but one-tenth of the cost items of the finished house. Thus a saving of 50 per cent in this item affects the total cost only 5 per cent. By the mobile house method, on the other hand, he hopes to apply shop fabrication to almost the entire house, thereby effect considerably larger savings.

Another of the economies which Architect Whelan anticipates is of particular importance to architects, since it may provide the key to architect-participation in the low cost house field. This is a saving in design cost. On this point Architect Whelan says, " . . . we found from our experience with the sectional or module construction that we could not redesign every house to suit the whims and fancies of owners, or the engineering and architectural services would total in expense a sum greater than the cost of the material we were furnishing. In an effort to eliminate these repetitive and costly services we designed the stock truckable units for flexibility of combination in order to avoid monotony but maintain duplicity."

LE TOURNEAU STEEL HOUSE

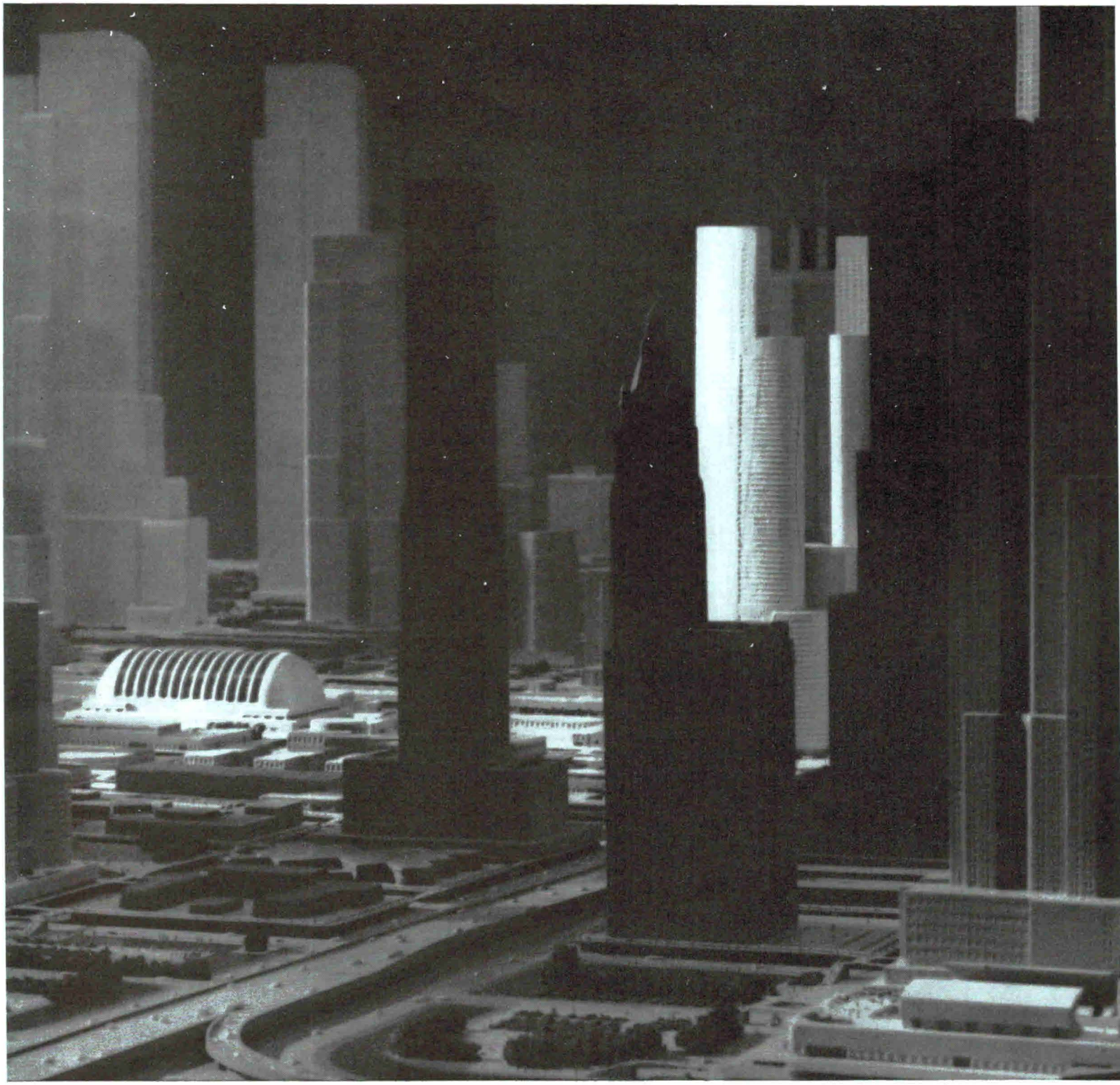
Of a distinctly different type is the all steel, arc welded five-room bungalow developed by Architect Ephraim Field for R. G. Le Tourneau, Inc., of Peoria, Ill. Normal in size and shape (32 x 44 ft.), and weighing 41 tons, this house requires a special permit for highway transportation. The plan provides a living room, kitchen, breakfast room, two bedrooms, bath and garage. A special aspect of the initial Le Tourneau program, which calls for the construction of six such units for employe housing, involves floating the completed houses across the Illinois River on their own bottoms. Three steel rings are provided in the roof so that the houses may be lifted bodily and set in position by tractor crane.

Production methods, which are being perfected on the five houses now building (one has been completed), clearly indicate the advantages of complete shop fabrication and assembly. Of these, the most important are the freedom from the necessity to provide for innumerable construction joints, as in sectional construction, and the opportunity to apply advanced techniques in the assembly of the various parts.

Floors for the Le Tourneau house are built upside down in two sections. Floor plates are first placed on a steel and concrete platform of the exact ground area of the completed house, 32 x 44 feet. These plates are ¼ in. thick, 96 in. wide and 44 ft. long, four such plates being used in the construction of the complete floor. Atop these plates 6 in. light-weight I-beams are set crosswise at intervals of 2 ft. and welded to the floor plates. The frame is then boxed-in with 12 in. junior channels and additional junior I-beams placed across the joists to act as girders. Water and soil pipes are next installed, and the entire underside painted with non-corroding paint and black asphalt. The two halves are then separately turned over, tacked together, and beads laid down the 44 ft. length of the three joints between the four plates, making the floor a solid unit.

After the floor structure is completed, it is lifted off the platform to make way for the construction of the roof, which is built right side up. Ceiling plates of No. 10 gauge steel

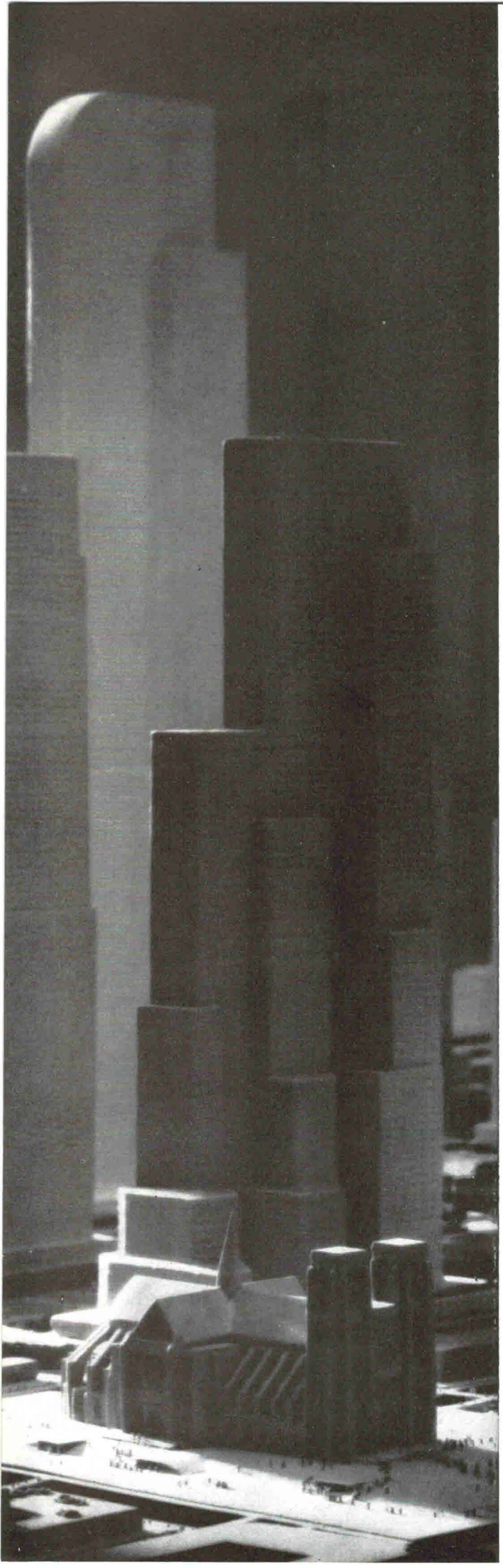
(Continued on page 82)



All photos, Richard Garrison

CITY 1960

NORMAN BEL GEDDES, DESIGNER



This is a model of a city which Mr. Norman Bel Geddes believes we may all be working in twenty-odd years from now. It shows a highly concentrated business center whose use of huge towers, widely spaced, would contain a working population of three to five times the present density average in New York, and supporting a total population of perhaps 15,000,000.

The idea of communities better than those in existence has intrigued men of powerful imagination for centuries: More, Bellamy, Wells, Howard, Corbett, Corbusier and Wright are only a few. The main subject of the Geddes plan, the basis of a promotional program,* is the solution of traffic problems; its architectural aspects are incidental, forming only the skeleton upon which the traffic solution is laid. Since the model was built to be photographed, this constituted another controlling factor.

Within these limitations the plan was laid out, its design reflecting three basic assumptions:

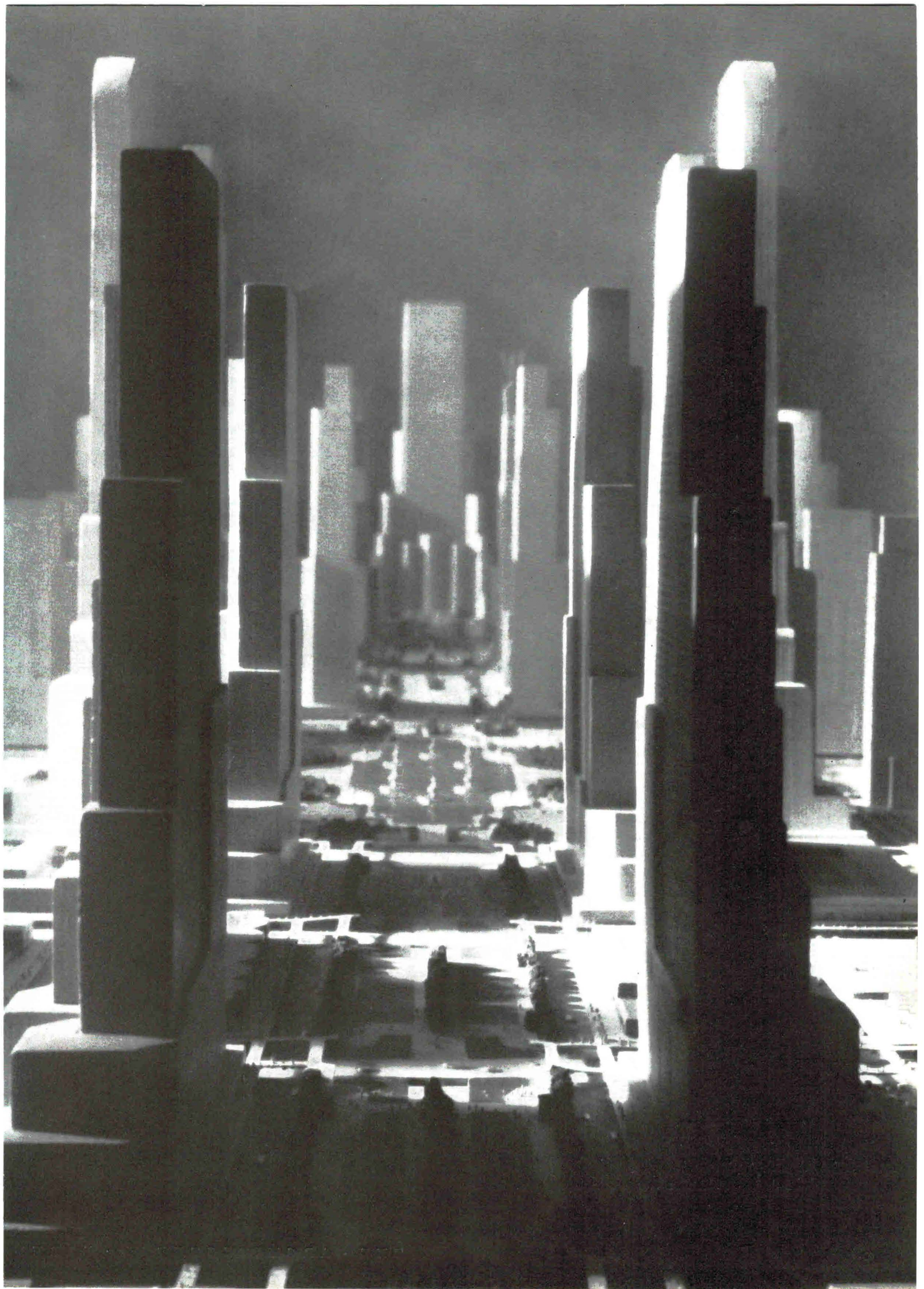
1. That the automobile will, in 20 years, be essentially the same type of carrier that it is today, and that it will still be the most common means of transportation. No provision for autogiros and similar possible developments has been considered.

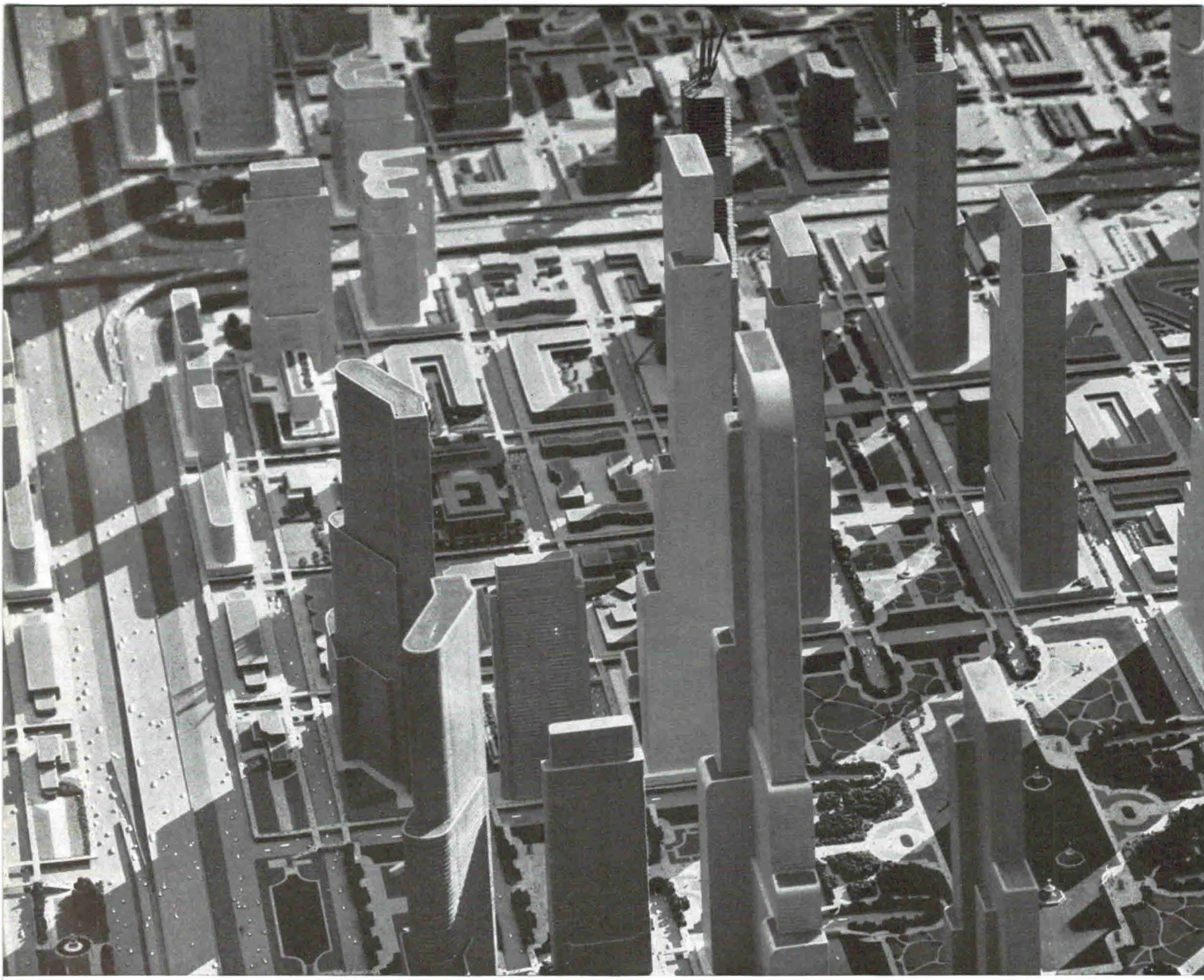
2. That the city of the future will be larger, not smaller than the metropolis of today. There is evidence to suggest that the big city will shrink, and become more decentralized, tending toward a more balanced relation of town and country. The designer believes that while rural areas will become more highly developed, cities will also continue to grow.

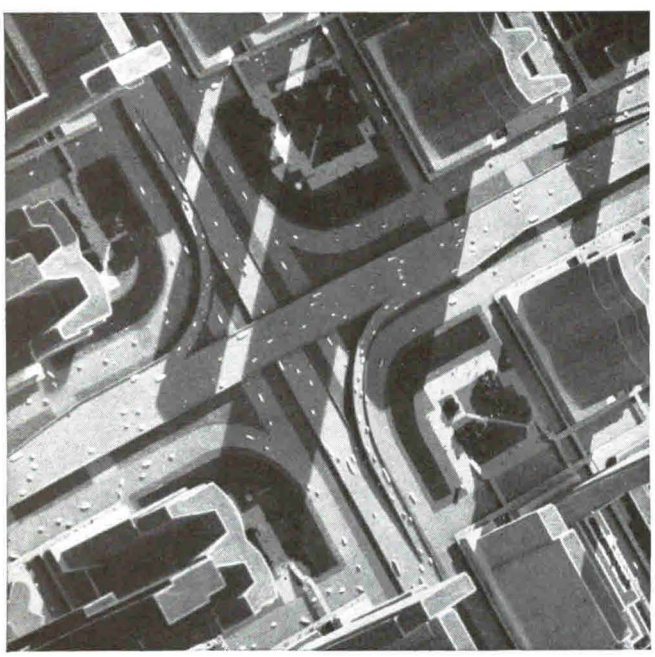
3. That all land, and all land use will be completely controlled by the municipality. This planned city, obviously, with its predetermined location of skyscrapers, low buildings, parks, and super-streets would have no place for the type of private initiative which exists in the real estate field today.

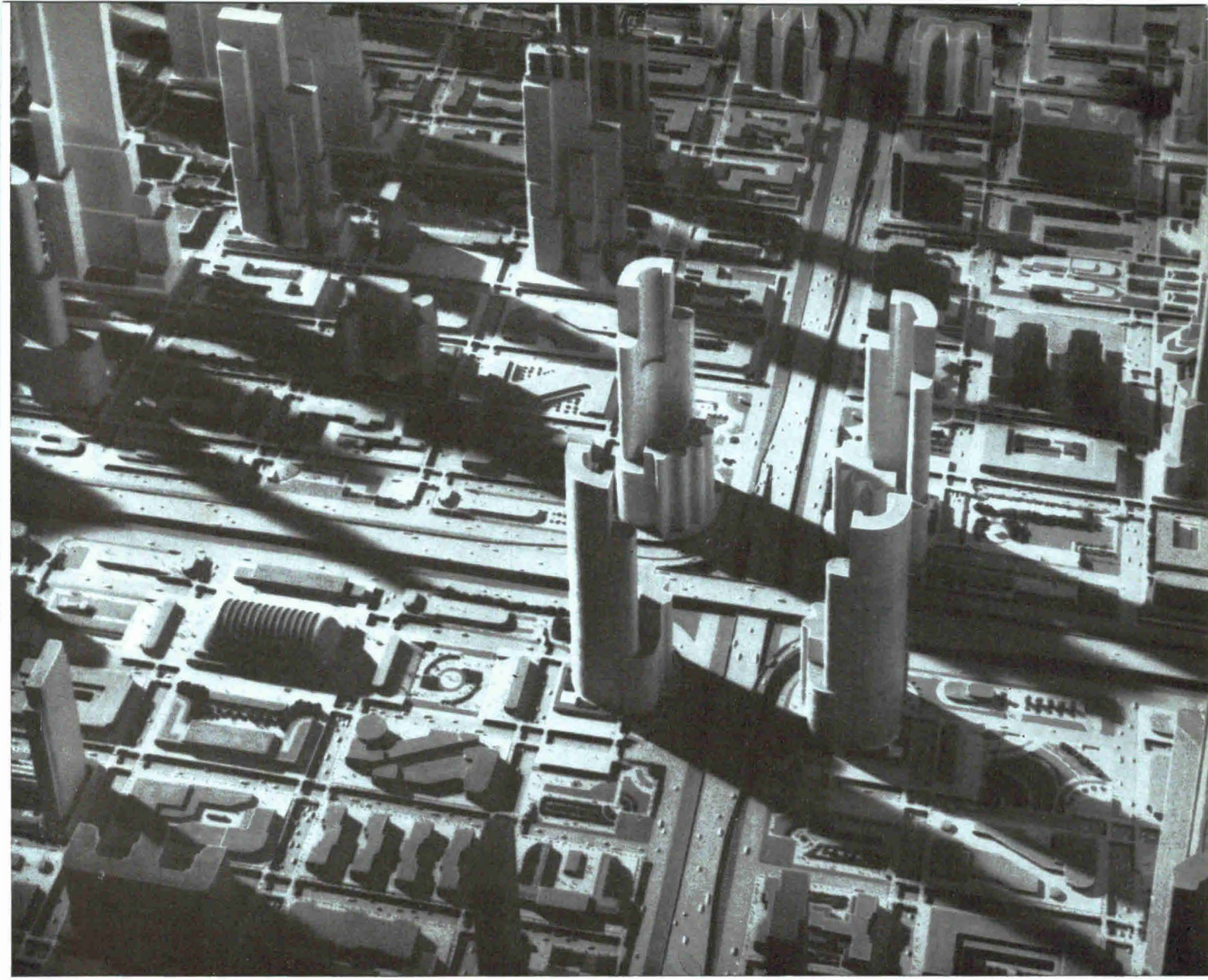
It is only within the limitations mentioned, and on the basis of the above premises, that the Geddes plan should be examined. One may question its assumptions, the grid plan, the complete exclusion of dwellings from the commercial section shown by the model. In fairness to the designer it should be noted that the entire model was designed in one week and executed in four additional weeks.

*The model was made under the sponsorship of the Shell oil companies.



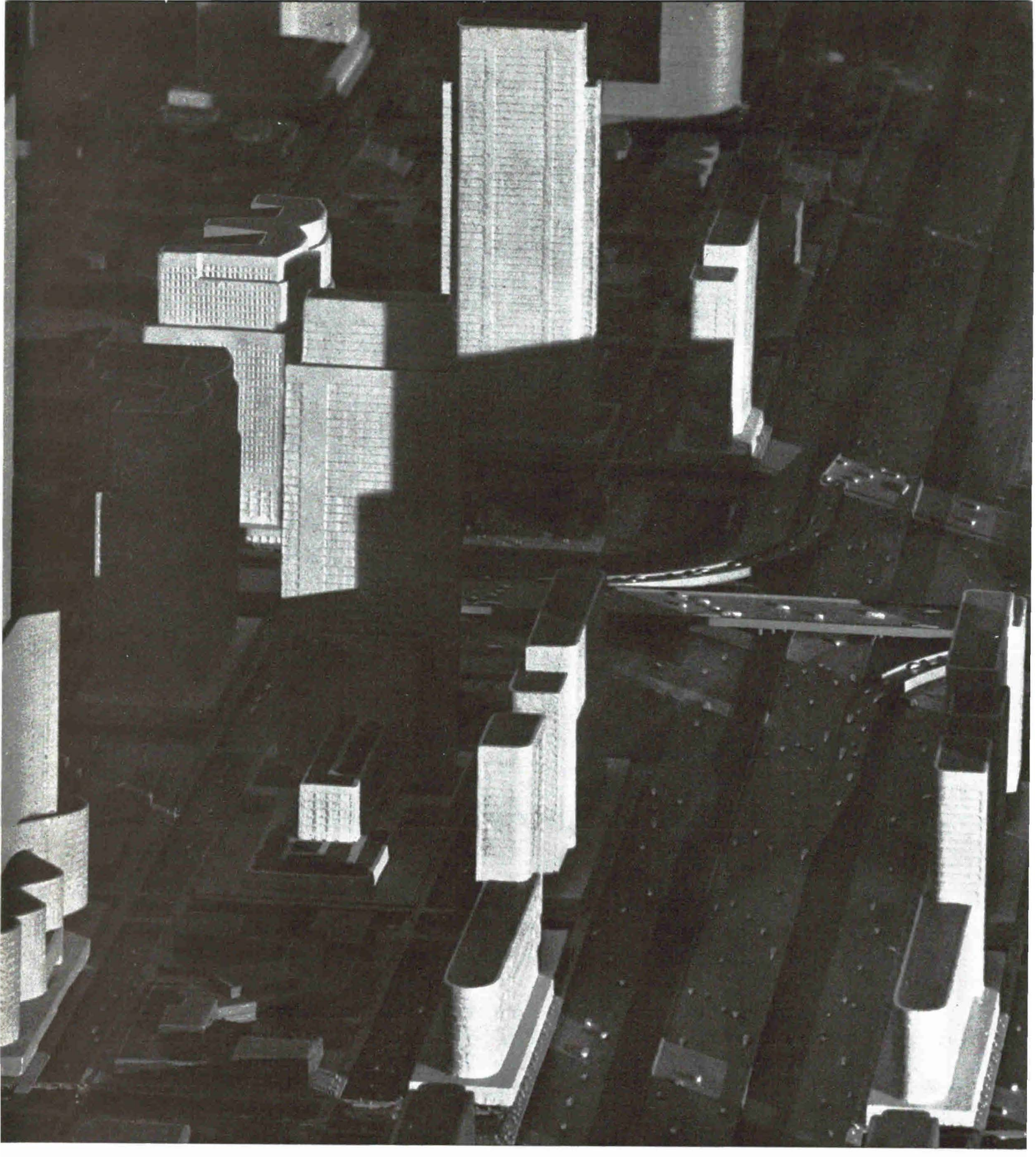






Seen from above, the city appears as a grid, with blocks 250 x 500 ft., bounded by streets 80 x 100 ft. wide. Traffic on these streets would flow at about 20 miles an hour.* An average city street has three moving lanes, two parking lanes, and 15 ft. of sidewalk at the sides. In the Geddes scheme the sidewalks are raised a story, providing three more lanes of traffic. Parking and loading take place on the ground floor level of the buildings, thus making available two additional lanes of traffic. These five additional lanes of moving cars increase the street capacity about 65 per cent. At ten-block intervals are the arterial highways, 400 ft. in width, and divided according to the speed and character of the traffic. The small illustration on the left shows a typical intersection: traffic on these roads is one-way, with right-hand turns to other highways and to the low-speed feeder avenues. The bulk of the land is covered with low buildings and parks, with groups of sky-scrapers concentrated at intersections, on plazas, and along the various avenues according to organic requirements.

*Present average New York City traffic speed: about six miles an hour.



It is at sunset that Mr. Geddes' brave new city appears at its most romantic, with the last rays of the afternoon sun creating a vast patchwork of black and white. On the highways and subways the crowds stream out to the vast suburbs. By midnight, save for the hotels, watchmen, and late revelers, the city is deserted.

BUILDING MONEY

A monthly section devoted to reporting the news and activities of building finance, real estate, management and construction

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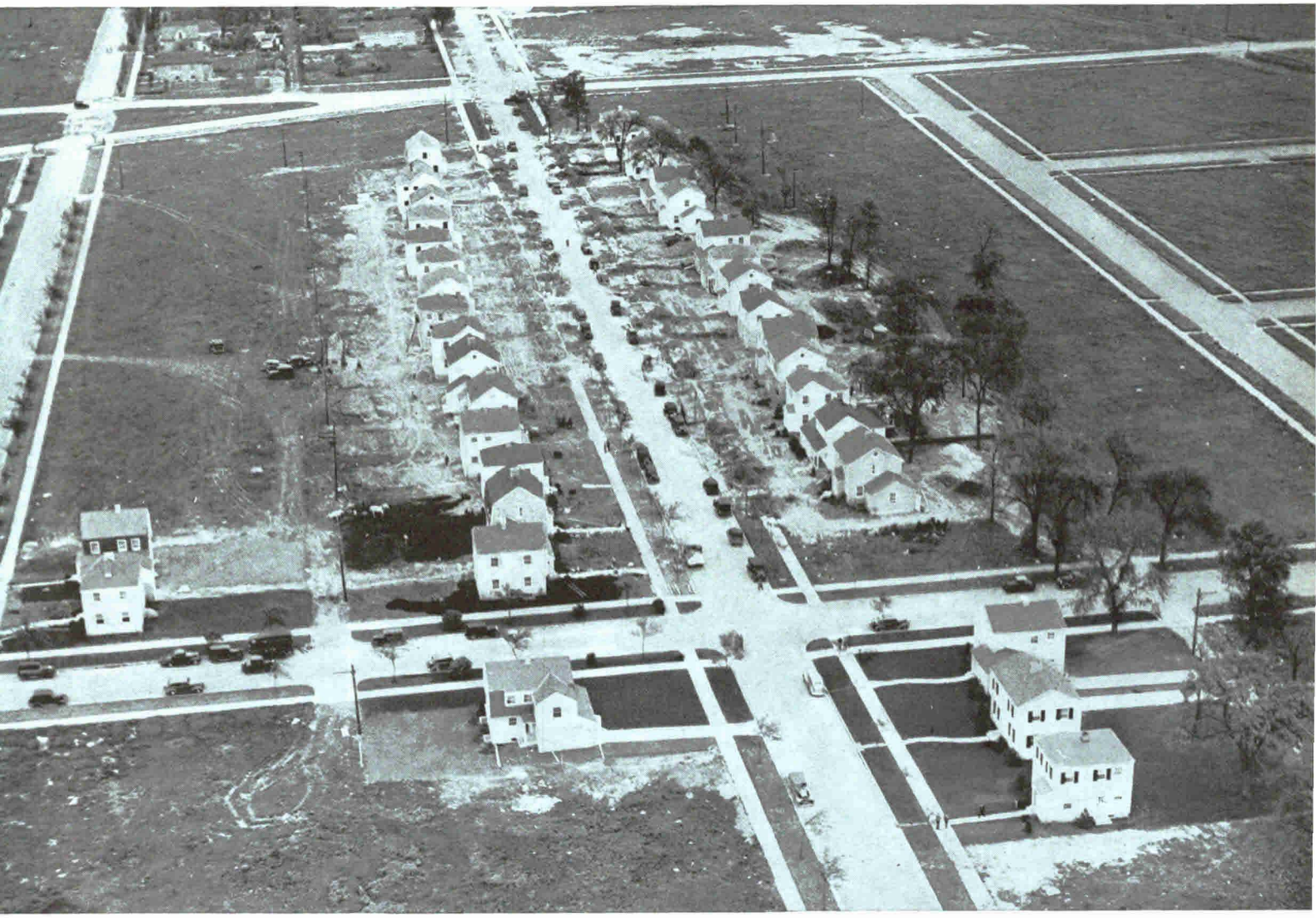


HARMON SUBDIVISION, 1937 MODEL (See Page 64).

HARMON BUILDS AGAIN

this time in Chicago, where "Americanization" is helping to sell $10,000 houses.

WHEN William Burke Harmon was still in kneepants, his father was capitalizing on his ideas about subdividing land in Cincinnati. Before Burke was out of his 'teens, his father was building up Harmon, N. Y. Last month Burke Harmon was, for the second time and the second generation, again proving that Harmon National Real Estate Corp. is no empty title: to add to his developments in New Jersey, on Long Island, and in New York's Westchester County, he opened a development in Chicago called, with more purpose than was immediately self-evident, Colonial Village.

The project Burke Harmon had to develop, publicize, and sell was a 130-acre plat of even ground on the south edge of Chicago. He has owned the land since 1927, has been biding his time for the proper moment to start operations. During depression years, Builder Harmon kept his hand in by building on a constrained scale in the East. Just after the New Year began, Builder Harmon turned to Chicago, broke ground for the first of a projected 285 houses.

Because merchandizing is important in a market of rising costs, Developer Harmon gave considerable care to his publicity. For his market he chose the lower middle-class industrial workers in his neighborhood. Observing that they were mostly first- and second-generation immigrants, he set his theme as the Americanization of the worker. Hence "Colonial Village."

From the time work started until Colonial Village's formal opening day last month, a matter of five months, there was very little publicity of any kind. No advertisements were run. There was no direct mail campaign. Reason: Developer Harmon feels that large crowds are all right for speculative land sales, but serve simply to surround legitimate home prospects with noisy dead-heads.

Harmon estimates that some 30,000 persons have been through the four completed model houses, arriving at that figure from his count of 7,500 cars which have gone into the subdivision. A boy was hired to sit at the subdivision's entrance and take down license numbers, thus at once getting an estimate of the number of visitors and also compiling a valuable list of prospects, since the license numbers can be keyed to a list of names and addresses. Each morning Harmon's salesmen receive cards with the names of 15 of these potential house-buyers, divided as to the neighborhood in which they live. The salesmen call to find out if they are interested in buying in Colonial Village. If they seem worthy prospects, their names are tabulated in a registration file. For three weeks they are their original salesman's exclusive prospects, and he can exercise an option on them for three more weeks. After that, any salesman can try to sell them.

For his one resounding merchandising coup thus far, Builder Harmon and his publicity man William Harshe have capitalized on the attention accorded Robert S. and Helen M. Lynd's *Middletown in Transition*, the study of Muncie, Ind., as an average American town. Harmon organized a contest which was run in the Muncie Evening *Press* to pick the "typical" American family from that typical American town. This family of four was flown to Chicago on a Friday, taken to Colonial Village the next day where the "typical" mother cut a ribbon across the front door of one of the model houses (see cut). The model house had been supplied with the latest in electrical equipment by Commonwealth Edison, and was furnished by a Chicago department store.

Burke Harmon (left) and Stunt.

What this family was brought up to help sell was 31 houses, which stretch out along either side of one road (see frontispiece). Builder Harmon brought Architect Albert E. Olsen from New York as associate to his Chicago Architect Albert Frederic Heino. These two devised four variations on a floor plan for two types (see p. 65), worked out still further variations by supplying five different surface treatments. All the houses, which range in price from $7,500 to $10,500, have been given a Colonial treatment, varying from Dutch Colonial through Regency. Harmon is also proud of the fact that the houses do not make an unbroken line but are set at different lengths back from the road, in a modified S-curve. Lots are either 40 x 123 ft. or 60 x 123 ft.

Colonial Village was financed by the National Homes Finance Corp. Harmon submitted his plans to the FHA, had the houses approved for FHA-insured mortgages. The National Homes Finance Corp. then advanced 50 per cent of the loan for the houses being constructed. At that time Harmon signed a mortgage for the entire amount. When the houses were half built, 25 per cent of the money was advanced, another 25 per cent coming through when the houses were completed. Harmon paid his contractors according to a schedule based on this division of payments.

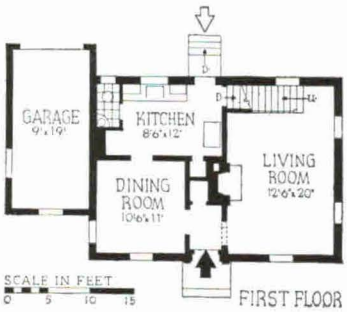
The National Homes Finance Corp. then sold the mortgage paper on the market. Thus the original investor got its money back, while the mortgage holder draws 5½ per cent interest. As the buyers take over, the FHA mortgage will be changed to remove Builder Harmon's responsibility, the buyer becoming the debtor.

Thus far, Builder Harmon has sold only a fraction of his houses, but he has hardly had time enough to realize the benefits of his recent merchandizing program. Nor will the "typical" family be his only effort at bringing Colonial Village to the attention of Chicago's buying market. He has already hastened to point out, in the series of advertisements which began last month, that Colonial Village is only 28 minutes away from the Loop by the Illinois Central, that all the houses are completely insulated, completely air conditioned. Another often reiterated statement: These houses could not be duplicated for a price 15 per cent higher, the bulk purchase of materials having been made in 1936.

* * * * * * *

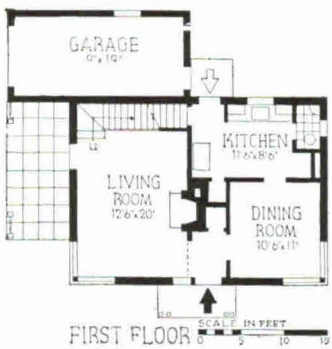
As testimonial to the fact that although he is up to his neck in work at Colonial Village, he can still think of his Eastern developments, Burke Harmon came out last month with a neat advertising and promotion scheme for his Harbour Green on Long Island, his Orchard Hill in Westchester, and his Chatham Manor in New Jersey. In the New York newspapers appeared a whopping advertisement six columns wide and the full page long announcing the opening of three model houses—one in each of the developments. The advertisement was unique in that it appeared over the name of Wanamaker's, famed Manhattan department store. This was the logical conclusion to an established working partnership. Having decorated and furnished "Shutters and Shingles," a Harmon house on its 8th floor, Wanamaker's had extended its share of the plan to the furnishing and decoration of the three model houses, given its readers explicit directions on how to reach each one, there to see not only Wanamaker furniture, but a Harmon home and a Harmon subdivision.

SECOND FLOOR

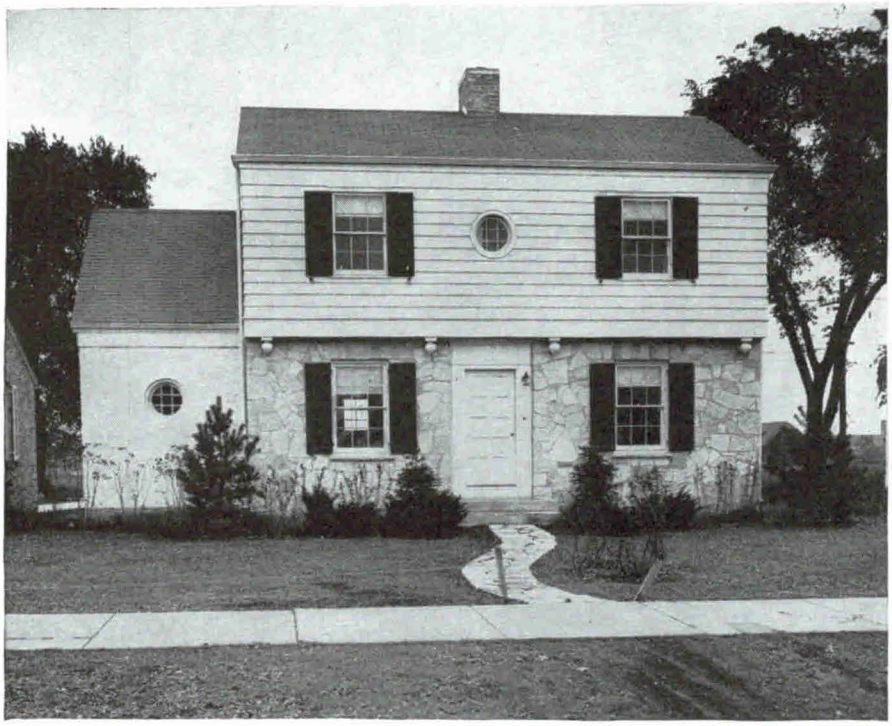


FIRST FLOOR

SECOND FLOOR



FIRST FLOOR



Two of Burke Harmon's Model Houses.

CONSTRUCTION OUTLINE

FOUNDATION: Walls—concrete. Cellar floor—concrete on cinder fill.
STRUCTURE: Exterior walls—stone veneer, brick veneer, redwood siding or Perfection shingles; yellow pine wood frame, diagonal sheathing. Inside—wood lath and plaster. Interior partitions—stud walls, 16 in. o.c. and 3-coats plaster on wood lath.
ROOF: Shingled with 15 lb. roofers' felt and 3-in-1 butt asphalt shingles.
SHEET METAL WORK: Flashing, gutters and leaders—copper bearing galvanized metal.
INSULATION: Outside walls and attic floor—½ in. balsam wool. Weatherstripping—galvanized interlocking.
WINDOWS: Sash—wood, double hung. Glass—quality B.
STAIRS: Treads, handrail and newels—oak. Risers, stringers and balusters—pine.
FLOORS: All rooms—select red oak.
WALL COVERINGS: Living room, bedrooms and halls—wallpaper. Bathrooms—tile wainscoting.
WOODWORK: Trim—gum. Doors — pine, 6-panel Colonial.
PAINTING: Interior: Walls and ceilings in kitchen and bath—2 coats enamel finish; ceilings in other rooms—calcimine. Floors—filled, stained, shellac and wax. Exterior: Walls—2 coats outside paint.
ELECTRICAL INSTALLATION: Wiring—rigid conduit for exterior; flexible for interior.
PLUMBING: Fixtures, Kohler Co. and Crane Co. Pipes: Soil, waste and vent—heavy cast iron. Water—galvanized steel.
HEATING AND AIR CONDITIONING: Air conditioning unit including fan, filters, humidifier, Fox Furnace Co. and American Radiator Co. Boiler—coal fired. Hot water heater—30 gallon storage tank, gas heater for summer, coil in boiler for winter.

REALTY'S KNOTTIEST PROBLEM

is surveyed by the Twentieth Century Fund. Some body blows at the theory of tax limitation together with a ten-point program for realty taxation.

In the fall of 1933 the NAREB, through its Committee on Taxation under able Realtor Adam Schantz, declared open war on high property taxes (Arch. Forum, July, 1934, p. 68). The first and most important objective in its six-point program was to press for a constitutional property tax limitation in the 43 States still without one. In the 45 months since this brave beginning, only one State has passed any form of tax limitation.

When it is remembered that there are some 14 million home owners in the U.S. with a definite financial stake in property tax reduction, and when it is remembered that this army can be mobilized so quickly that in 1933 in Ohio 900,000 votes for tax limitation were corralled in a single summer, the current standstill of the tax limitation drive demands more than a cursory explanation. That explanation is to be found in the arguments against tax limitation, and like good tacticians, many a realtor in the past year has been reviewing those arguments with care. Last month to the help of this tactical review there came the newest publication from the press of the Twentieth Century Fund, "Facing the Tax Problem."* It contained and endorsed every considerable argument ever adduced against the reduction, exemption, or limitation of the property tax.

The Twentieth Century Fund was established in 1919 by President Edward A. Filene of Filene's Sons, Boston department store, and is administered by nine trustees on a mildly liberal, fairly detached basis. Among its best known pieces of research are "The Internal Debt of the U.S.," "Stock Market Control," "Labor and the Government." The committee in charge of the taxation study consisted of Thomas I. Parkinson, conservative anti-New Deal President of the Equitable Life; Lawyer Francis Biddle, onetime chairman of the National Labor Relations Board; President Harry S. Dennison of the Dennison Manufacturing Co.; Robert M. Haig, consultant on taxation to the U.S. Treasury; Roswell F. Magill, early New Dealer, onetime Assistant to the Secretary of the Treasury on Taxation; Peter Molyneaux, editor of the *Texas Weekly;* Eustace Seligman, of the famed law firm of Sullivan & Cromwell; and Evans Clark, secretary of the Fund.

*Twentieth Century Fund, Inc., $3.00.

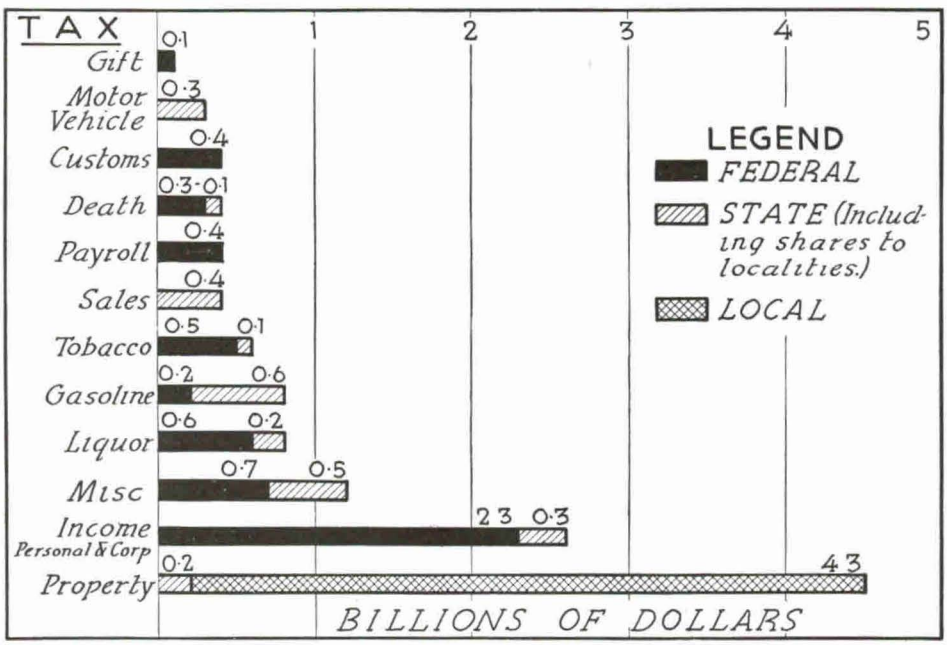
"The Public Interest." The property tax in the U.S. today produces about $4,500,000,000 a year, or about two-thirds of the total State and local tax revenues. This is nearly twice as much revenue as is derived from the second largest source of revenue in the U.S., the income tax. This property tax divides itself into two components: the tax on realty and the tax on other personal property and intangibles. Taking a nationwide average, the tax on realty produces about 80 per cent of the total property tax,* which is still considerably more than is derived from any other single assessment source.

"In common with practically every other observer, past or present," remarks the Fund committee, "we deplore the obvious injustices found under the property tax. We urge that they be speedily lessened, even though complete elimination is too much to hope for. The best tax system is the one that most fully promotes the public interest. . . . The first problem is to determine what the public interest is."

On so much there is general agreement. The point at which the trains of thought of realty and the Twentieth Century Fund part company is where each defines the public interest. To realty it seems obvious that any reduction in property taxes will benefit nearly everybody—not only in reduced tax payments, but in reduced rent, reduced overhead, reduced prices. To the Fund committee, however, the matter appears in another light. "Public interest," it feels, must also be compatible with what it terms "tax justice." On its face, this reservation is a commonplace, readily endorsed by everybody. But the Fund finds in it some hard corollaries. Of these the most fundamental is that the total U.S. tax revenues of $12,500,000,000 must willy nilly be raised every year; and every exemption in one quarter means a corresponding increased imposition in another. The criterion of what makes a good tax therefore becomes deeply involved in the question of what makes a just tax.

Accepting the need for tax justice, the Fund finds it natural to protest strongly against any reduction in property taxes. The argument against reduction of property taxes is that existing realty values have already been "capitalized" against future taxation: that is, at the time of its

(Continued on page 50)



From property: 36 per cent of the nation's taxes.

*The latest survey by *The National Municipal Review* shows that in the 310 leading cities of the U.S. during 1936 only 20 derived less than 80 per cent of the property tax revenue from realty, only five derived less than 70 per cent, and none derived less than 55 per cent.

A QUINTET OF TAXPAYERS

from Philadelphia, including the world's smallest, fill out the second in a series of portfolios.

In its February issue, THE ARCHITECTURAL FORUM *presented a panel of six taxpayers, prepared a summation of their finances, and examined them with a view to their essential character as hedges on real estate futures. The first portfolio examined a sextet of the buildings which have helped to change the face of Manhattan. This month* THE ARCHITECTURAL FORUM *looks at five from Philadelphia, expects in the near future to present a similar number from Chicago.*

Philadelphia is famed as the City of Homes, and for considerable reason, since 83 per cent of the dwelling units are in row houses, 13 per cent in semi-detached villas. Absent from the Philadelphia scene are the ten- to twenty-story apartment buildings of Chicago and New York. Even the number of skyscraping office buildings, stores, and hotels does not reach into three figures. Thus is obviated to an extent the cycle which has produced many a taxpayer: from prosperity skyscraper to depression debit, to demolition, to parking space, to taxpayer—and around again.

Actually, of the five Philadelphia taxpayers herewith presented, one replaced a vacant four-story residential structure, one a parking-space, one an eighteen-story white elephant, one an office building, and the fifth was erected merely to make a gainful investment out of a plot of embarrassing limitations. Otherwise these taxpayers conform to the few rules-of-thumb and generalities laid down in reference to structures of this type last February (ARCH. FORUM, February, 1937, p. 158).

Land cost is a basic factor in determining the size and shape of a taxpayer. This is nowhere better exemplified than by a look at No. 3 in the portfolio, a building which fills a plot exactly 45 in. deep, and demonstrates vividly what can be done to protect what appeared to be a hopeless investment.

The neighborhood shapes the design. As a rule, all taxpayers are of modern design, with a sleekness of material and a smoothness of surface and a strong stress on line. But No. 4 is more restrained, not only because it is a swank dress shop whose exterior must impress a wealthy class of prospects, but also because, like an increasing number of merchandise outlets, it has been placed in a residential neighborhood.

Display shapes the taxpayer, and has brought about most of the improvement in its design. Thus, in No. 5, the requirements of display demanded the slender piers and large window spaces, an arrangement which resulted in a sound, dignified design.

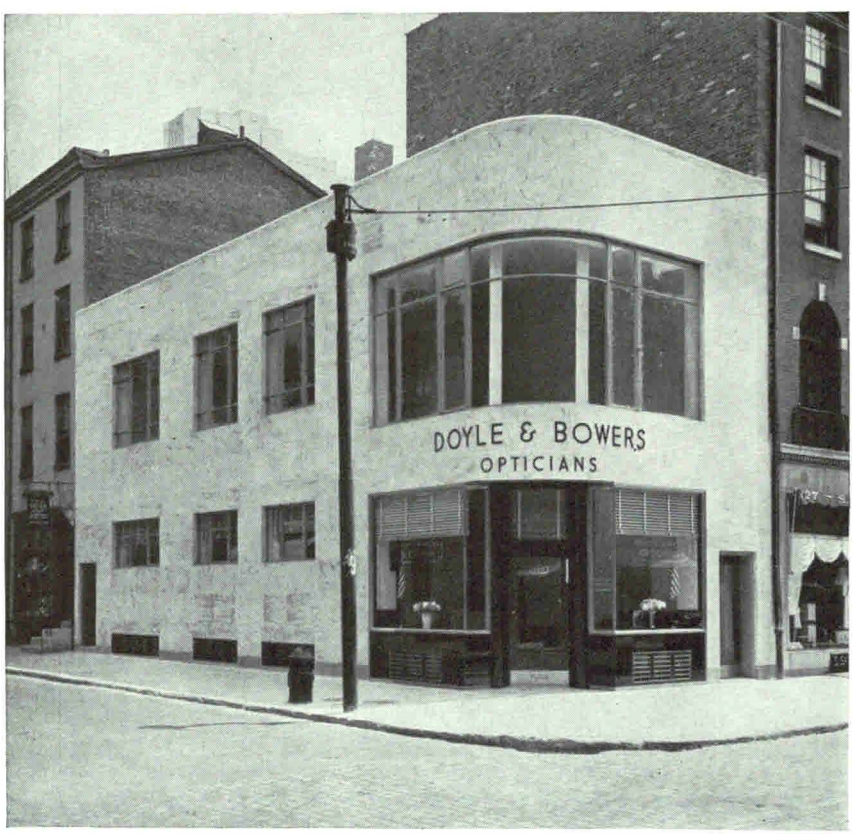
The short life of a taxpayer makes heavy construction an unsound practice. The only exception to this rule is that some owners will lay foundations and bearing walls capable of carrying a future load of additional stories. None of these five Philadelphia taxpayers has, however, been planned for such a future.

Rents for taxpayers are based on a graduated scale of percentage leasing. The practice of percentage leasing, long a familiar technique, is doubly popular since depression. Manhattan's rental agents are following these precepts more and more, and the same obtains for any heavily metropolitan district. In Philadelphia, it has not yet taken hold to the marked extent that it has in Manhattan, most realty owners being conservative trust funds, long on investment, short on speculation.

1. **This site, before the present improvement, was a parking space, with rents that failed even to meet taxes. A corner lot in a neighborhood with increasing commercial possibilities, its value was high enough to warrant a reasonably ambitious taxpayer. Treatment, with the possible exception of the somewhat pretentious cast stone facing, is simple. The solution of the corner problem is ingenious: two slender columns were run from the height of the building, framing the door; and by a system of partial cantilever construction the piers were kept back of the plane of the glass windows. Architects: Magaziner & Eberhard.**

	BEFORE	AFTER
ASSESSED VALUATION	$50,400	unknown
TAXES	1,323	unknown
RENTS	600	$4,200
MORTGAGES	none	none
COST of demolition and new building	18,000	

FLOOR PLAN



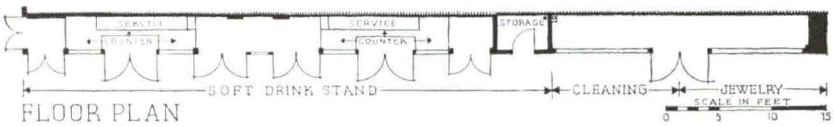
Philip B. Wallace

C. V. D. Hubbard Photos

2. Pictured on this page are two of three taxpayers which front two short blocks in the heart of commercial Philadelphia. For an idea of their orientation, see the cut at the right, below: to the extreme left is Taxpayer No. 3 (below, left), in the middle is the Tru-Site Oculist Co., while the remainder of the space is taken up with Taxpayer No. 2 (left). All three taxpayers were built after a city ordinance had been passed to widen the street on which they face. Taxpayer No. 2 is a straightaway example of approved technique: limestone is a popular exterior material; there is some uniformity to shop signs; the first floor is liberally equipped with window space for merchandizing; the piers are slender and widely spaced; shop entrances are cantilevered; there is an arcade entrance to second floor office space. All rents are guaranteed, except for one percentage lease. Architects: Simon & Simon.

	BEFORE	AFTER
ASSESSED VALUATION	$515,000	$549,000
TAXES	14,640	13,978.71
RENTS	6,000	30,000
MORTGAGES	none	none
COST of demolition and new building	68,000	

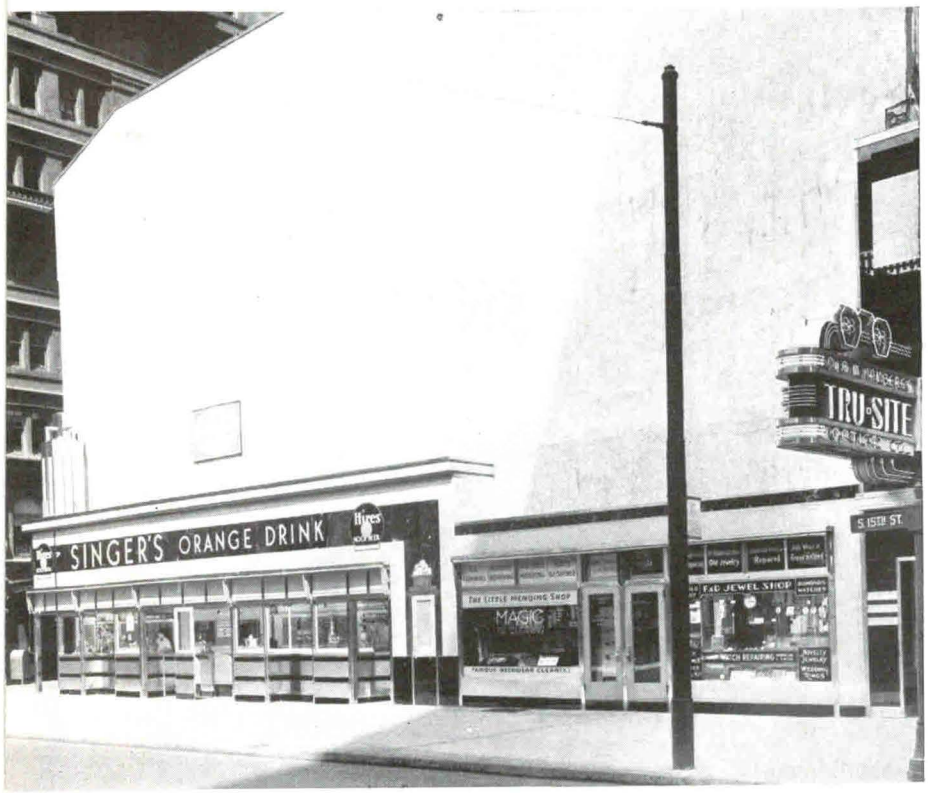
FLOOR PLAN



FLOOR PLAN

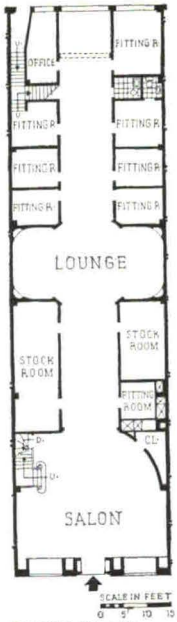
3. This taxpayer is probably the smallest taxpayer in the world, and is a monument to the ingenuity of its owner. The widening of the street referred to above left a ribbon of land 45 in. deep. Despite this discouraging limitation, the owner erected shelter for three establishments along a 90 ft. front, was able even to supply them with a cellar for storage. For tenants he signed up a soft-drink establishment, a dry cleaning shop, and a jewelry repair shop. A year's rents have paid the investment for the new building out twice, providing the last and most cogent proof that this taxpayer is one of the neatest expressions of land utilization. Architect: Israel Demchick.

	BEFORE	AFTER
ASSESSED VALUATION	$325,000	$59,400
TAXES	9,262.50	1,559.25
RENTS	20,000	3,900
MORTGAGES	none	none
COST of demolition and new building	9,500	

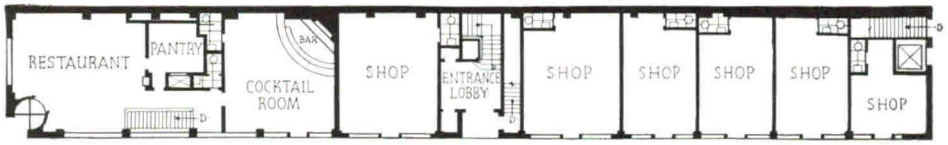


4. This swank Philadelphia dress shop is in the forefront of a trend which is bringing commercial establishments into residential districts. Its facade is therefore appropriately restrained. Since the display is aimed at a restricted minority there is no necessity for it to shout at every passer-by. The layout of the shop is a workmanlike solution to the problem of keeping circulation to a minimum: the stock rooms are central so that models have easy access both to salon and to lounge. Architects: Thalheimer & Weitz.

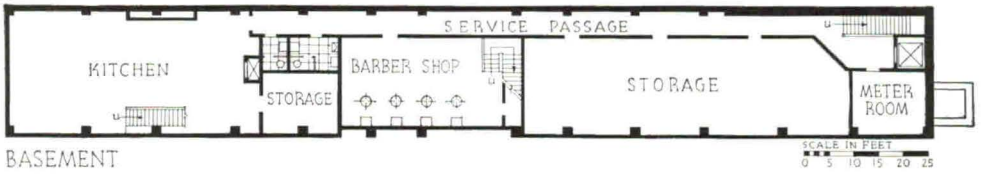
	BEFORE	AFTER
ASSESSED VALUATION	$80,000	$70,000
TAXES	2,350	2,100
RENTS	none	7,500
MORTGAGES	none	none
COST of demolition and new building	30,000	



FLOOR PLAN



FIRST FLOOR



BASEMENT

5. This taxpayer (right) replaced a nine-story building originally designed as a hotel, which was subsequently made into an apartment building and finally into an office building. At no point did it make money. In its last years its income did not equal even the cost of operation. At present the bar and grill, seven stores, second-floor office space, and basement barber shop yield a gross income of $26,000, while total operating charges do not exceed $4,000, a minimum made possible by central plant heat and the absence of elevators. Nor is there janitor service, the leases stipulating that each tenant take care of his space. The Flanders Bar and Grill, which has an interior designed by Manhattan's Architects Pruitt & Brown, represents a departure from standard Philadelphia renting practice in that there has been a percentage clause specified. Architects: Register & Pepper.

	BEFORE	AFTER
ASSESSED VALUATION	$603,600	$446,000
RENTS	none	26,000
TAXES	1,614.63	1,126.15
MORTGAGES	undisclosed	none
COST of demolition and new building	77,500	

AN INDEX TO LABOR AND MATERIAL

prices in the small house market shows new highs and no declines as the union hits its stride.

SMALL house costs collected from 26 cities by the Federal Home Loan Bank Board in April show the sharpest increase in prices to be registered in the 15 months of the FHLBB index, an increase largely attributable to the rise in material prices. Last month the May small house costs from 25 other cities reporting to the FHLBB were released, showed a similarly high increase. Only difference was that labor rather than material prices were revealed as the decisive factor in the May increase.

Below are shown the cost data from the 25 cities reporting for May, together with similar data for the past five quarters. Another 41 cities report in the intervening months. Similarly collected data are given on the cubic foot cost in the 25 cities reporting this month. Beside the table is given a detailed description of the standard house upon which the bids have been made. The value of such a compilation lies obviously in the relative trends revealed rather than in the absolute values quoted.

The increasingly disturbing rôle being played by labor wages in the residential field was corroborated last month on other fronts, as the full effect of the Spring union contracts began to make itself felt. The plasterers got a six-hour day in New York. In Seattle the six-hour day became nearly universal in the building trades. In Detroit small house construction virtually ceased for a fortnight when negotiations for Spring rates began. In the non-union town of Hartford building labor wages have risen 25 per cent in the last twelve months. In Portland, Ore., there was a general increase in building wages of 18 per cent on January 1, and current demands are for a six-hour day with eight-hour pay. In Denver the unions have practically won their fight for a closed shop, are getting from $1.38 to $1.50 an hour for skilled building labor.

Of the 25 cities reporting to the FHLBB for May, only three turned in bids of more than $6,000 on the standard house last November. For May the total of bids over $6,000 from the same cities had climbed to 15.

Greatest rate of increase over the last report in February was the 15 per cent registered by Phoenix, Ariz., where the cost of the small house rose from $5,885 to $6,742. Second and third largest increases came from Pittsburgh and Harrisburg with 9 per cent. Only city to show an increase of less than one per cent was San Diego.

Highest absolute costs were registered from Cleveland and Phoenix, where the cubic cost on the FHLBB house stood at 28.1 cents, and from Pittsburgh, where the rate was a flat 28 cents. Lowest rate was 22 cents in Little Rock, Ark.

The House on Which Costs Are Reported is a detached 6-room home of 24,000 cubic feet volume. Living room, dining room, kitchen, and lavatory on first floor; 3 bedrooms and bath on second floor. Exterior is wide-board siding with brick and stucco as features of design. Best quality materials and workmanship are used throughout.

The house is *not* completed ready for occupancy. It includes all fundamental structural elements, an attached 1-car garage, an unfinished cellar, an unfinished attic, a fireplace, essential heating, plumbing, and electric wiring equipment, and complete insulation. It does *not* include wall-paper nor other wall nor ceiling finish on interior plastered surfaces, lighting fixtures, refrigerators, water heaters, ranges, screens, weather stripping, nor window shades.

Reported costs include, in addition to material and labor costs, compensation insurance, an allowance for contractor's overhead and transportation of materials, plus 10 per cent for builder's profit.

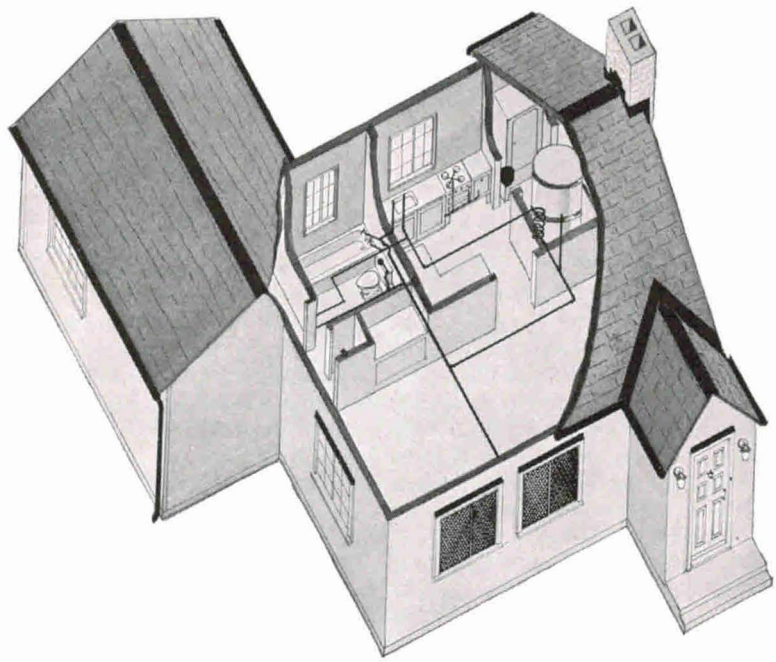
Reported costs do *not* include the cost of land nor of surveying the land, the cost of planting the lot, nor of providing walks and driveways; they do not include architect's fee, cost of building permit, financing charges, nor sales costs.

In figuring costs, current prices on the same building materials list are obtained every three months from the same dealers, and current wage rates are obtained from the same reputable contractors and operative builders.

FEDERAL HOME LOAN BANK DISTRICTS, STATES, AND CITIES	CUBIC FOOT COST		TOTAL BUILDING COST					
	MAY 1937	MAY 1936	MAY 1937	FEB. 1937	NOV. 1936	AUG. 1936	MAY 1936	FEB. 1936
NO. 3—PITTSBURGH:								
DELAWARE:								
WILMINGTON	$0.239	$0.220	$5,737	$5,406	$5,258	$5,259	$5,290	$5,213
PENNSYLVANIA:								
HARRISBURG	.258	.227	6,186	5,668	5,408	5,405	5,439	5,371
PHILADELPHIA	.248	.203	5,944	5,483	5,010	4,929	4,870	4,584
PITTSBURGH	.280	.225	6,730	6,179	5,920	5,433	5,405	5,474
WEST VIRGINIA:								
CHARLESTON	.248	.228	5,957	5,696	5,696	5,564	5,477	5,476
NO. 5—CINCINNATI:								
KENTUCKY:								
LEXINGTON	.245	.213	5,887	.....	5,223	5,237	5,120	4,993
LOUISVILLE	.255	.222	6,111	.....	5,456	5,338	5,326	5,384
OHIO:								
CINCINNATI	.263	.243	6,321	5,849	5,748	5,932	5,827	5,809
CLEVELAND	.281	.256	6,756	6,320	6,213	6,165	6,147	6,028
COLUMBUS	.265	.230	6,352	6,052	5,778	5,850	5,529	5,522
TENNESSEE:								
MEMPHIS	.238	.213	5,704	5,462	5,092	5,080	5,120	4,841
NASHVILLE	.226	.212	5,421	5,267	5,094	5,096	5,089	5,030
NO. 9—LITTLE ROCK:								
ARKANSAS:								
LITTLE ROCK	.220	.217	5,285	5,195	5,136	5,202	5,215	5,215
LOUISIANA:								
NEW ORLEANS	.246	.211	5,911	5,601	5,395	5,124	5,075	5,075
SHREVEPORT	.248	.....	5,961	5,468	.....	.....	.....	.....
MISSISSIPPI:								
JACKSON	.244	.222	5,849	5,607	5,412	5,365	5,333	5,319
NEW MEXICO:								
ALBUQUERQUE	.265	.234	6,358	5,948	5,827	5,779	5,625	5,625
TEXAS:								
DALLAS	.256	.234	6,143	5,968	5,641	5,641	5,618	.....
HOUSTON	.266	.247	6,391	5,935	5,809	5,809	5,933	.....
SAN ANTONIO	.262	.231	6,284	5,884	5,538	5,532	5,532	5,464
NO. 12—LOS ANGELES:								
ARIZONA:								
PHOENIX	.281	.255	6,742	5,885	5,843	6,032	6,112	6,044
CALIFORNIA:								
LOS ANGELES	.251	.218	6,015	5,800	5,489	5,301	5,239	5,316
SAN DIEGO	.256	.224	6,141	6,137	5,581	5,361	5,381	5,385
SAN FRANCISCO	.267	.251	6,407	6,319	6,222	6,151	6,017	.....
NEVADA:								
RENO	.277	.263	6,641	6,360	6,354	6,313	6,324	6,097

A house uses copper for:

1. Plumbing
2. Heating
3. Flashing
4. Screens
5. Hardware
6. Roofing
7. Gutters, spouts
8. Insulation
9. Air Conditioning



BEHIND THE PRICES

of two building materials. Copper and brick futures.

LAST month the cost of **Copper** to building material manufacturers was pegged at 14 cents a pound, a level at which market observers felt that it would stick, barring war scares, until early fall. This cost, although 69 per cent above the 1936 average of 9.77 cents a pound, is nevertheless a relief from the April cost level, when copper's biggest producers,* reacting to the tremendous bids from the London market, upped prices to 17 cents a pound.

Copper's biggest peacetime consumers are the non-building electrical and automotive industries. Building, which five years ago bought only 58,000,000 lbs., last year took some 142,000,000 lbs., exclusive of wiring, 24,000,000 more than in 1929 when there was twice the capital in building. Already, in the first quarter of 1937, building has accounted for 23,000 tons of copper, a 66.4 per cent increase over 1936. With the tremendous rise in the use of copper screens, copper pipes and fittings, copper flashings and drainage equipment, and air conditioning, building has become third greatest consumer, has the reputation of having supplied the reason for copper's respectable 1936 profits.

Production costs for copper are relatively stable: it costs little more to produce 10,000 pounds than to produce 1,000. Labor costs are likewise predictably level, the miners receiving a minimum of $6 per hour with fluctuations according to the current price of copper. With power costs little changed and transportation expenses up by little more than 10 per cent, there seemed no logical cause for pegging the price at 17 cents a pound.* Actually the cause for the rise was two-fold. First, European armaments had lifted the bidding to 17.35 cents a pound. Furthermore, the apparent consumption of copper in April was 95,880 tons and since the total U.S. copper production capacity approximates only 1,000,000 tons a year, consumption at the April rate for the balance of 1937 would result in a shortage and an increase in prices.

However, the bottom fell out of the London market when the word was passed around that buyers' credit was weak and that war threats were dissipating. Simultaneously came President Roosevelt's pronunciamento against the high prices of durable goods, and back went the price of copper to 14 cents a pound.

The drop leaves the cost of copper still so far above the 1936 average that consumers are bound to feel the pressure. For the future, those consumers can console themselves with one hope. The scare handed the copper buyers by the temporary price of 17 cents a pound so packed order books that the Copper and Brass Research Association announced last month that, should no more orders be placed with producers, mines would still be kept busy until September. This indicates the possibility of a slight overproduction with a consequent fractional decline in prices.

Last month the price of **Brick** became complicated by the fast-shifting patterns of Labor. Behind wholesale costs for the next few months will be the figure of an old-line AFL labor leader, Joseph P. Ryan, president of the International Longshoremen's Association.

Reason for brick prices dovetailing into the activities of Laborite Ryan is that for the last three months he has been beebusy in the organization of brick handlers, having forced his way into the field by way of the bargemen who transport brick from the nation's largest regional group of producers, along the banks of the Hudson River.

Result: the ILA drove a deal for a minimum wage of $90 per month for Hudson River barge captains, thus adding 15 per cent to that area's brick transportation costs on the heels of a voluntary 10 per cent increase early this year. By the beginning of last month it was reported that plant labor, representing 50 cents of the retail brick dollar, was one-third organized under an ILA charter. Also, month before, up had gone the wholesale price of Hudson Valley brick from $11 to $12 per thousand due to the rise in fuel costs. In most localities the consumer was protected from this increase until this month by brick dealer price contracts.

Significantly, producers have reduced by 50 per cent the usual six-month price contract period for dealers. With one eye to the further organization of plant labor and the other on last month's bargemen's victory, observers predict a substantial increase in the price of wholesale brick by early fall.

*Anaconda, Kennecott, and Phelps Dodge produce over 80 per cent of domestic copper. When one of this Big Three shifts the price, the others usually follow suit.

* Under the NRA that price had been set at 9 cents a pound with the industry conceding that the ball of profit starts rolling at 8 cents a pound.

Rising construction costs are hard to explain to the prospective home buyer who sees $1,000 added on to last year's $5,000 house. Smart merchandising calls for an explanation packed with facts. To the architect and the builder THE FORUM *presents herewith a battery of simple, accurate facts about two of Building's five basic materials.*

A CALIFORNIA RENTAL PROJECT

opens with 100 per cent occupancy, should pay out in ten years.

On the northern coast of California is Eureka, a bustling little city (pop. 18,000) whose chief industries are oil and lumber. Junior executives of these two industries, put down in Eureka for two- and three-year apprenticeships, have created a steady local demand for modern rental units, and it was, therefore, no problem to Owners Grace Hunter Hine and her husband when they sat down to figure out what to do with a corner lot 122 x 159 ft.

Last month this plot, improved with six small Colonial cottages for rent, was displaying a proud record: it has been 100 per cent occupied since its opening last September, and it has never lost a single rental day, despite the departure of two original tenants.

The improved property is one of several in Eureka which the Hunter family has owned for upwards of four decades. On it for a long time stood seven aging and fading houses, for which rentals had sunk to the vanishing point. Mr. and Mrs. Hine approached Architect Harold O. Sexsmith, explained their problem to him. There were several factors which contributed to the solution: the houses were to be small, comparable to apartments; there need not be much land surrounding them, since the tenants would theoretically not have much time to spend on care on lawn or garden; the houses were to be of lumber, since Eureka is a lumber town.

The six houses which resulted are all one-story cottages, and consist of four single houses with the other two attached to form an L. Each has a garage, a living room, one bedroom, a dining room, bath, and kitchen, with ample closet space. There are also storage closets for the wood which is the town's chief fuel. Each house is equipped with a wood-burning fireplace. Gas lines were laid for heating as well as cooking, but it has been found that the tenants preferred to use wood both in the gas-or-wood stove and in the fireplace. Mrs. Hine now feels that it would perhaps have been better to supply one house with two bedrooms, in order to give the project greater rental flexibility, but the success in renting the six single-bedroom cottages has obviated to an extent the desirability for any larger houses. In point of fact, she has found that the project was so popular in comparison to existing rental houses that, at slightly higher rents than obtainable elsewhere in town, she has rented half her houses to permanent residents of Eureka, only the other half to the junior executives for whom the project was designed.

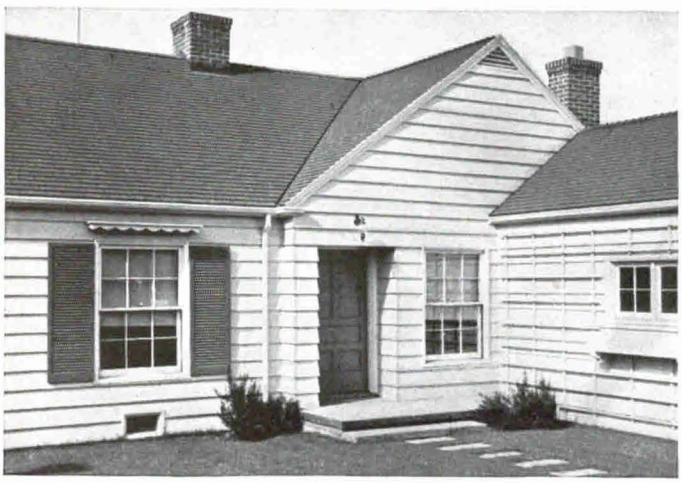
The high coverage of a small plot presented a knotty problem in orientation of the six units. Each of the living rooms and the porches has relative privacy, as do the bedrooms in relation to the views of the other bedrooms. Most of the bedrooms take advantage of the breezes from the Pacific to the west, and most of the porches and living rooms get the afternoon sun of the southwest.

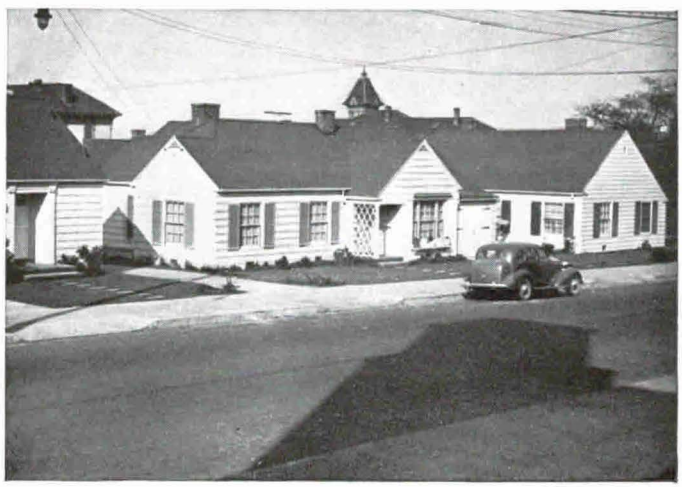
Construction of the houses is sturdy, since upkeep and depreciation are factors which will bounce back on Mrs. Hine rather than on her tenants. Foundation walls are concrete. Whenever possible materials were indigenous. Thus, redwood sidings were used for the exterior walls, redwood shingles for the roofs, redwood shavings for insulation, and the gutters are likewise of redwood.

Total cost of the six-house project was $26,400, at an average cost per unit of $4,400. Since the total cubage of the sextet is 135,000 cu. ft., its cost worked out at 19½ cents per cu. ft. Owner Hine is getting $47.50 per month from each tenant, plans to up this to $50 per month whenever a new tenant moves in. To the $26,400 cost, there was added $400 worth of planting, lawns, and shrubs; stoves, linoleum, curtain rods, shades, fire screens, and wall beds for the dressing rooms were also extras, came to about $1,000. Owner Hine financed the building with money realized by selling bonds. With taxes of $350 per year, depreciation and upkeep will probably not push her annual expenses beyond $1,500. Since her rents will be bringing her $3,600 per year, she will have paid her investment out in ten years. After considering her assertion that she could not have sold the corner property for more than $5,000 before its present improvement, her investment seems a safe one.

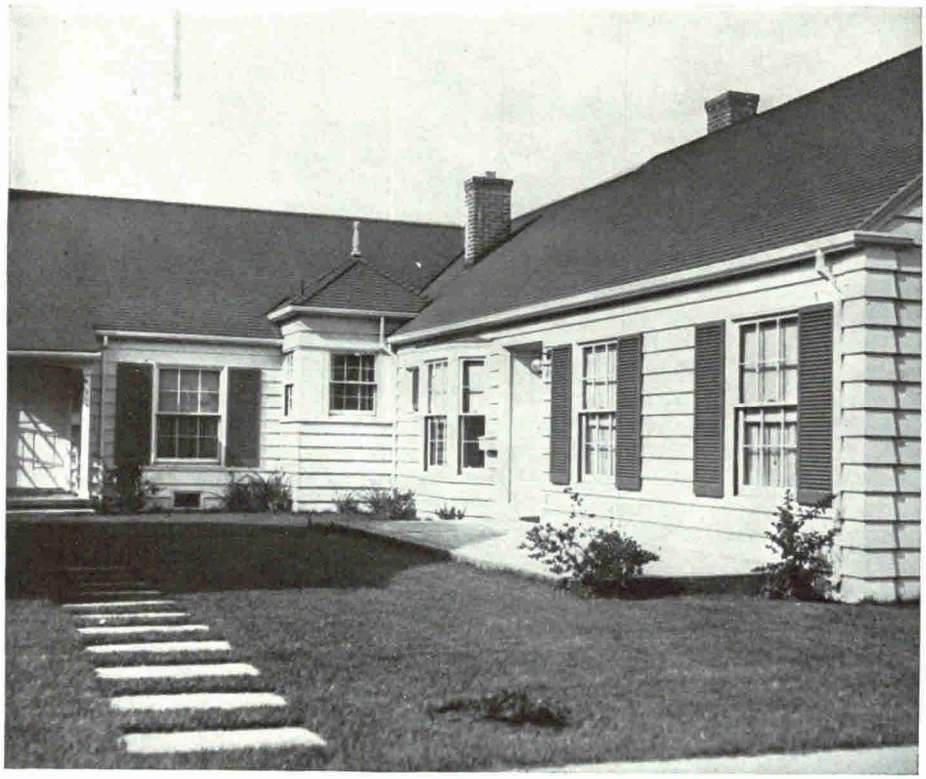
The occupancy record of the houses shows the value of routine merchandising that is well-planned. Principal publicity came from advertisements which ran in local papers for a week and personal contact by Owner Hine. Since home renters more often than home buyers demand varied, interesting interiors, the individual attention given to the interior decoration of the cottages was particularly emphasized. Chief additional selling point was the attractive landscaping.

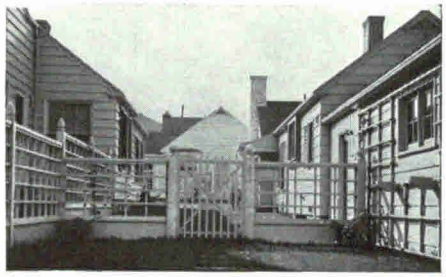
Her eye on the future, Mrs. Hine has also considered the possibility that commercial Eureka will expand close to her property. At present the houses are not more than five blocks from the leading hotel, one block from the main car line, two blocks from the public library. She feels that should the business zone approach her houses too closely, they could be readily converted into doctors' offices, dentists' offices, or music studios.



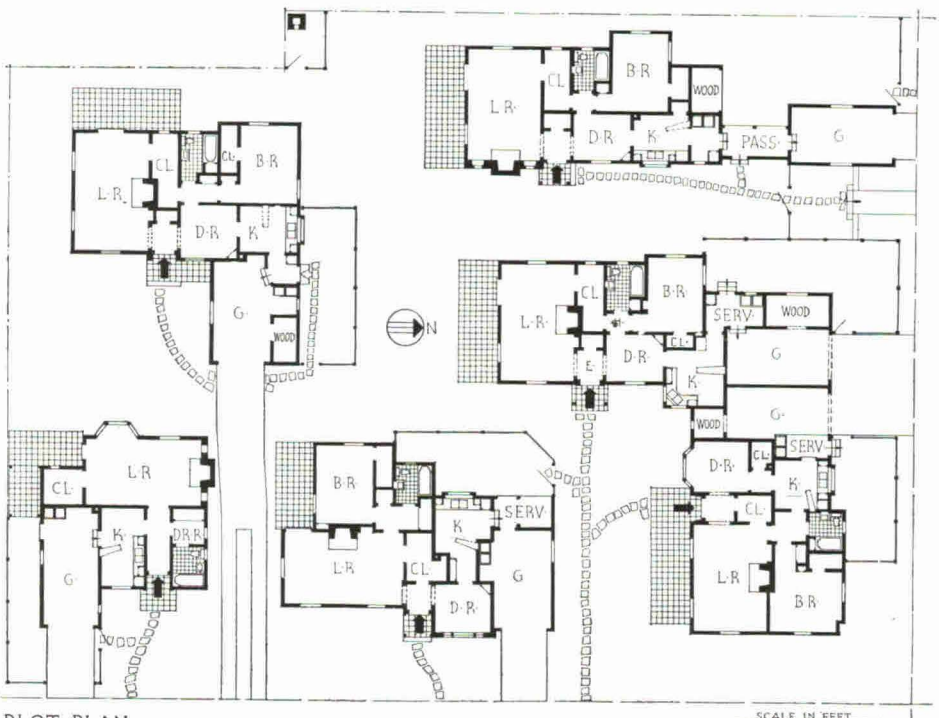


Six One-Story Cottages Bring $3,600 per Year.





Tenants were attracted by the successful attention which Owner Hine paid to landscaping and interiors. Below, see the relation of the six units to each other. Architect Sexsmith was able to achieve more than adequate privacy.



PLOT PLAN

CONSTRUCTION OUTLINE

FOUNDATION: Walls—concrete.
STRUCTURE: Exterior walls—redwood siding on studs. Interior partitions—studs and plaster. Floor construction—wood joists, 1 x 6 in. sub-floor.
ROOF: Construction—wood frame, redwood shingles.
CHIMNEY: Lining—terra cotta.
SHEET METAL WORK: Flashing and leaders—galvanized iron. Gutters—redwood.
INSULATION
Outside walls and attic floor—redwood shaving between studs and ceiling joists.
WINDOWS: Sash—double-hung, wood. Glass—double strength, quality B.
FLOORS: Living room, bedrooms and halls—oak. Kitchen—fir, covered with linoleum. Bathrooms—tile.
WALL COVERINGS: Bedrooms—wallpaper. Kitchen and bathrooms—lacquered wallpaper.
WOODWORK: Trim and garage doors—redwood. Doors—white pine.
HARDWARE: Interior and exterior—brass.
PAINTING: Interior: Walls and ceilings—3 coats lead and oil. Floor—stain, shellac, wax. Trim and sash—3 coats lead and oil. Exterior: Walls—3 coats lead and oil. Roof—oil stain.
ELECTRICAL INSTALLATION: Wiring system—knob and tube. Switches—tumbler, Hart & Hegeman.
KITCHEN EQUIPMENT: Range—combination gas and wood. Refrigerator—electric. Sink—Standard Sanitary Mfg. Co.
BATHROOM EQUIPMENT: All fixtures by Standard Sanitary Mfg. Co. Seat—C. F. Church Mfg. Co.
PLUMBING: Pipes: Soil—cast iron. Water—wrought iron.
HEATING: Gas floor furnace. Hot water heater—water back in wood range, connected with storage tank.

A SURVEY OF REALTY

for 1935 is provided by the Bureau of the Census.

PART of the encyclopædic job of the U.S. Bureau of the Census is to make a periodic census of business, the latest of which embraces the year 1935. Included in the census of business, and published last month, was the Bureau's survey of the construction industry and of real estate agencies. Consisting of two slim, blue-backed booklets, these twin surveys presented to the reader a formidable series of tables, small encouragement to burrow for any constructive nuggets of fact.

The industrious burrowers last month were rewarded with such disparate nuggets about the 1935 market as these:

Of the $117,844,000 in commissions and fees for 1935 earned by the real estate and real estate and insurance offices answering the census,
42 per cent came from sales' commissions;
27 per cent came from rental commissions;
17 per cent came from management fees.

Forty-three per cent of all the employes in the real estate offices of the nation were women.

The average weekly earnings for executives in the real estate offices of the nation was $62; for selling employes, $24.

(Continued on page 74)

(Continued from page 73)

Of the 36,137 real estate and brokerage offices reporting, 49 per cent were located in the six States of California, New York, New Jersey, Pennsylvania, Illinois, and Ohio. They accounted for 54.8 per cent of the total income.

On the construction side of the picture, the largest category of business by value was "Other than residential," which accounted for 68 per cent of the total, as against 32 per cent for residential.

This work was divided up between general contractors and special trade contractors. The special trade contractors found 39 per cent of their work in non-residential work, 36 per cent in one- and two-family houses, 18 per cent in multi-family houses. The general contractors, on the other hand, found 30 per cent of their work in heavy construction, 29 per cent in highway construction, 27 per cent in other non-residential construction, and only 10 per cent in one- and two-family houses.

General contractors on heavy construction contracts do more work outside their home State than anybody else (35 per cent), while plumbing contractors stay closest to home with only 1 per cent of their work outside the State.

Nearly 70 per cent of all contracting establishments did less than $10,000 worth of business each in 1935, and their combined dollar volume accounted for less than 10 per cent of the grand total. Next most numerous category was that doing a business of $500,000 a year and over, in which 8 per cent of the contractors fell, and which accounted for 67 per cent of the dollar volume of building.

The average yearly business of the general contractor was $82,175 as against $10,676 for special trade contractors.

Contracting firms operating under individual proprietors or under partnerships chalked up 28 per cent of the cost of their work to payrolls, while firms operating under other legal forms of organization (companies, corporations, etc.) spent 36 per cent in payrolls. This differential was due in part to the fact that the individual proprietors usually worked on the jobs themselves, drew wages in the form of profits.

Among all the special trade contractors in the U.S. in 1935 the heating and plumbing group did the largest dollar volume of business; the electrical group did the second largest dollar volume business; and the painting, paperhanging, and decorating group did the third largest.

The six busiest States for all contractors, in descending order, were: New York, California, Illinois, Pennsylvania, Ohio, and Massachusetts.

The ten busiest cities were: New York City, Chicago, Los Angeles, Philadelphia, Detroit, San Francisco, Washington, Kansas City, St. Louis, Cleveland.

THE TRAILER THREAT

expertly surveyed, is deflated on legal grounds.

For the past two years there has been no need to listen carefully in order to hear the doleful chorus of warnings which has been uttered in connection with the trailer. They came from all sides and from all prophets. But last month, like a sharp knife cutting a roll of bologna, came a report issued jointly by an impressive roster of experts: the American Municipal Association, the American Public Welfare Association, the American Society of Planning Officials, and the National Association of Housing Officials.

The report, the work chiefly of the American Municipal Association's Executive Director Clifford W. Ham, posed first the disparate aspects of the trailer problem: as traffic, as taxable properties, in connection with trailer camp planning and layout, and in connection with trailer camp ownership. It concluded by inserting a very cautious pin into remarks like those of Seer Roger W. Babson, who said that half the population of the U.S. would be trailerites within 20 years. Said the report: "Whether or not the trailer house will play [a beneficial part] as a permanent housing proposition is open to considerable and deeply rooted skepticism."

Trailers: Urban. *Wide World*

Trailers: Rural. *Pictures Inc.*

Chief reason for the skepticism lay in the report's reminder that most existent local, State, and Federal health, housing, and building codes would outlaw the trailer as a permanent abode or as part of a colony. As the Chicago *Daily News* pointed out, "No matter how you park it, a trailer is just a house without enough cubic feet of air space per person per room, according to the building codes."

Regarding the uses of the tens of thousands of mobile houses now in existence, last month's report gave a passing nod to indisputable fact: "There can be but little doubt that the vacation trailer house—the overnight cottage on wheels—is here to stay." The report then rolled up its sleeves and tackled the problem of trailers as permanent housing.

Conceivably, some communities are anxious to encourage trailer camps and these, the reporting organizations warn, face administrative problems galore. Four possible types of camps are considered.

Best of the four types, in the organization's estimation, is the camp operated by the community for privately-owned trailers. The city would install utilities and collect rents from trailer owners, would be able to exercise close control on the tenants. But here, the report points out, the cities might be treading dangerously close to municipal low-cost housing, might thereby be breaking State laws against participation in such a business.

Second type analyzed is paralleled to a "horizontal cooperative apartment," which would be privately operated for privately owned trailers. The operator would provide utilities and facilities, each family owning the land beneath its trailer's wheels. Likewise, there is the advantage that one man would be responsible to authorities for law enforcement.

Third possible type considered is, in effect, a tenement: the camp would be privately operated for a corporational owner, who would rent the trailers out. Law enforcement here would "be little more tiresome than that involved in the case of standard tenements or low-rent apartment houses." Inspection would be more difficult; eviction slightly simpler. A Chicago promoter working on this basis allows tenants to contribute rent payments toward eventual purchase.

The last possibility, that of a municipally operated camp for corporation-owned "to rent" trailers, is considered so implausible thus far that it is dismissed with the comment that its difficulties will be those of the third type.

With its eyebrow cocked at the city manager or council too anxious to get business from transient trailerites, the report winds up: "The most unfortunate result [of public desire to use trailers as permanent dwellings] would be the enactment of statutes and ordinances sanctioning life in trailers under housing conditions which would not be allowed in standard dwellings. It is to be hoped that the public officials responsible . . . will act with full knowledge of this and the many other important social implications . . . "